SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS
OFFEROR TO COMPLETE BLOCKS 12, 17, 23, 24, AND 30

1. REQUISITION NUMBER	PAGE 1 OF 56

2. CONTRACT NO.	3. AWARD/EFFECTIVE DATE	4. ORDER NUMBER	5. SOLICITATION NUMBER	6. SOLICITATION ISSUE DATE
			N00167-06-Q-5021	19-Dec-2005

7. FOR SOLICITATION INFORMATION CALL:	a. NAME	b. TELEPHONE NUMBER (No Collect Calls)	8. OFFER DUE DATE/LOCAL TIME
	JUNE L. CATTERTON	301-227-3475	02:00 PM 19 Jan 2006

9. ISSUED BY CODE N00167

NAVAL SURFACE WARFARE CENTER, CARDEROCK
CODE 3323, JUNE CATTERTON
9500 MACARTHUR BLVD.
WEST BETHESDA MD 20817-5700

TEL: 301-227-3475
FAX: 301-227-1847

10. THIS ACQUISITION IS
- [X] UNRESTRICTED
- [ ] SET ASIDE: % FOR
  - [ ] SMALL BUSINESS
  - [ ] HUBZONE SMALL BUSINESS
  - [ ] 8(A)

NAICS: 334519
SIZE STANDARD: 500

11. DELIVERY FOR FOB DESTINATION UNLESS BLOCK IS MARKED
- [ ] SEE SCHEDULE

12. DISCOUNT TERMS

- [ ] 13a. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700)

13b. RATING

14. METHOD OF SOLICITATION
- [X] RFQ
- [ ] IFB
- [ ] RFP

15. DELIVER TO CODE N00167

NAVAL SURFACE WARFARE CENTER, CARDEROCK
RECEIVING OFFICER
CODE 3341, RECEIVING, BLDG 143
9500 MACARTHUR BLVD.
WEST BETHESDA MD 20817-5700
TEL: 301-227-1840 FAX:

16. ADMINISTERED BY CODE

17a. CONTRACTOR/ OFFEROR CODE

TEL.
FACILITY CODE

18a. PAYMENT WILL BE MADE BY CODE

- [ ] 17b. CHECK IF REMITTANCE IS DIFFERENT AND PUT SUCH ADDRESS IN OFFER

18b. SUBMIT INVOICES TO ADDRESS SHOWN IN BLOCK 18a. UNLESS BLOCK BELOW IS CHECKED [ ] SEE ADDENDUM

19. ITEM NO.	20. SCHEDULE OF SUPPLIES/ SERVICES	21. QUANTITY	22. UNIT	23. UNIT PRICE	24. AMOUNT
	SEE SCHEDULE				

25. ACCOUNTING AND APPROPRIATION DATA

26. TOTAL AWARD AMOUNT (For Govt. Use Only)

- [X] 27a. SOLICITATION INCORPORATES BY REFERENCE FAR 52.212-1. 52.212-4. FAR 52.212-3. 52.212-5 ARE ATTACHED. ADDENDA [X] ARE [ ] ARE NOT ATTACHED
- [ ] 27b. CONTRACT/PURCHASE ORDER INCORPORATES BY REFERENCE FAR 52.212-4. FAR 52.212-5 IS ATTACHED. ADDENDA [ ] ARE [ ] ARE NOT ATTACHED

28. CONTRACTOR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN COPIES
- [ ] TO ISSUING OFFICE. CONTRACTOR AGREES TO FURNISH AND DELIVER ALL ITEMS SET FORTH OR OTHERWISE IDENTIFIED ABOVE AND ON ANY ADDITIONAL SHEETS SUBJECT TO THE TERMS AND CONDITIONS SPECIFIED HEREIN.

29. AWARD OF CONTRACT: REFERENCE
- [ ] OFFER DATED . YOUR OFFER ON SOLICITATION (BLOCK 5), INCLUDING ANY ADDITIONS OR CHANGES WHICH ARE SET FORTH HEREIN, IS ACCEPTED AS TO ITEMS:

30a. SIGNATURE OF OFFEROR/CONTRACTOR	31a. UNITED STATES OF AMERICA (SIGNATURE OF CONTRACTING OFFICER)	31c. DATE SIGNED

30b. NAME AND TITLE OF SIGNER (TYPE OR PRINT)	30c. DATE SIGNED	31b. NAME OF CONTRACTING OFFICER (TYPE OR PRINT)
		TEL: EMAIL:

AUTHORIZED FOR LOCAL REPRODUCTION
PREVIOUS EDITION IS NOT USABLE

STANDARD FORM 1449 (REV 4/2002)
Prescribed by GSA
FAR (48 CFR) 53.212

SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS (CONTINUED)					PAGE 2 OF 56
19. ITEM NO.	20. SCHEDULE OF SUPPLIES/ SERVICES	21. QUANTITY	22. UNIT	23. UNIT PRICE	24. AMOUNT
	SEE SCHEDULE				

32a. QUANTITY IN COLUMN 21 HAS BEEN

☐ RECEIVED ☐ INSPECTED ☐ ACCEPTED, AND CONFORMS TO THE CONTRACT, EXCEPT AS NOTED: _____

32b. SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE	32c. DATE	32d. PRINTED NAME AND TITLE OF AUTHORIZED GOVERNMENT REPRESENTATIVE
32e. MAILING ADDRESS OF AUTHORIZED GOVERNMENT REPRESENTATIVE		32f. TELEPHONE NUMBER OF AUTHORIZED GOVERNMENT REPRESENTATIVE
		32g. E-MAIL OF AUTHORIZED GOVERNMENT REPRESENTATIVE

33. SHIP NUMBER ☐ PARTIAL ☐ FINAL	34. VOUCHER NUMBER	35. AMOUNT VERIFIED CORRECT FOR	36. PAYMENT ☐ COMPLETE ☐ PARTIAL ☐ FINAL	37. CHECK NUMBER
38. S/R ACCOUNT NUMBER	39. S/R VOUCHER NUMBER	40. PAID BY		

41a. I CERTIFY THIS ACCOUNT IS CORRECT AND PROPER FOR PAYMENT		42a. RECEIVED BY *(Print)*	
41b. SIGNATURE AND TITLE OF CERTIFYING OFFICER	41c. DATE	42b. RECEIVED AT *(Location)*	
		42c. DATE REC'D *(YY/MM/DD)*	42d. TOTAL CONTAINERS

Section SF 1449 - CONTINUATION SHEET

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001	Dosimeters FFP FOB: Destination	7,000	Each		
				NET AMT	

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002	Field Readers FFP FOB: Destination	80	Each		
				NET AMT	

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003	Lab Readers FFP FOB: Destination	68	Each		
				NET AMT	

NOTE: THE GOVERNMENT MAY ISSUE THE CONTRACT AND SOME OR ALL OPTIONS AT THE SAME TIME.

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0004		3,000	Each		
OPTION I	Dosimeters FFP FOB: Destination				
				NET AMT	

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0005		250	Each		
OPTION I	Field Readers FFP FOB: Destination				
				NET AMT	

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0006		2,000	Each		
OPTION II	Dosimeters FFP FOB: Destination				
				NET AMT	

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0007		1,000	Each		
OPTION III	Dosimeters FFP FOB: Destination				
				NET AMT	

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0008		1,000	Each		
OPTION IV	Dosimeters FFP FOB: Destination				
				NET AMT	

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0009		1,000	Each		
OPTION V	Dosimeters FFP FOB: Destination				
				NET AMT	

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0010		1,000	Each		
OPTION VI	Dosimeters FFP FOB: Destination				
				NET AMT	

DELIVERY INFORMATION

In accordance with Instructions to Offerors and Evaluation (Factor H: Product Samples) Deliver the Product Samples to the following address:

Naval Surface Warfare Center Carderock Div
Attn: Code 6410 Raymond Abbundi
Receiving Bldg 143
9500 MacArthur Blvd
West Bethesda, MD 20817-5700

The government will return product samples after the evaluation period at the governments expense.

CLIN	DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
0001	1 month. ADC	1,000 per month Total 7,000	NAVAL SURFACE WARFARE CENTER, CARDEROCK CODE 3341, RECEIVING, BLDG 143 9500 MACARTHUR BLVD. WEST BETHESDA MD 20817-5700 301-227-1840 FOB: Destination	N00167
0002	1 month ADC	40 per month Total 80	SAME LOCATION AS ABOVE	N00167
0003	1 month ADC	17 per month Total 68	SAME LOCATION AS ABOVE	N00167
0004 Option I	1 month	1,000 per month Total 3,000	SAME LOCATION AS ABOVE	N00167
0005 Option I	1 month	40 per month Total 250	SAME LOCATION AS ABOVE	N00167
0006 Option II	1 month	1,000 per month Total 2,000	SAME LOCATION AS ABOVE	N00167
0007 Option III	1 month	1,000	SAME LOCATION AS ABOVE	N00167
0008 Option IV	1 month	1,000	SAME LOCATION AS ABOVE	N00167
0009 Option V	1 month	1,000	SAME LOCATION AS ABOVE	N00167
0010 Option VI	1 month	1,000	SAME LOCATION AS ABOVE	N00167

NOTE: THE GOVERNMNET MAY ISSUE THE CONTRACT AND SOME OR ALL OPTIONS AT THE SAME TIME.

THIS SOLICITATON IS ISSUED USING SIMPLIFIED ACQUISITION PORCEDURES FOR THE ACQUISITION OF COMMERCIAL ITEMS IN ACCORDANCE WITH SUBPART 13.5 OF THE FEDERAL ACQUISITION REGULATION (FAR).

CLAUSES INCORPORATED BY REFERENCE

52.212-4	Contract Terms and Conditions--Commercial Items	SEP 2005
52.217-7	Option For Increased Quantity-Separately Priced Line Item	MAR 1989
52.249-8	Default (Fixed-Price Supply & Service)	APR 1984

CLAUSES INCORPORATED BY FULL TEXT

52.212-5 CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS--COMMERCIAL ITEMS (SEP 2005)

(a) The Contractor shall comply with the following Federal Acquisition Regulation (FAR) clauses, which are incorporated in this contract by reference, to implement provisions of law or Executive orders applicable to acquisitions of commercial items:

(1) 52.233-3, Protest After Award (AUG 1996) (31 U.S.C. 3553).

(2) 52.233-4, Applicable Law for Breach of Contract Claim (OCT 2004) (Pub. L. 108-77, 108-78).

(b) The Contractor shall comply with the FAR clauses in this paragraph (b) that the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or Executive orders applicable to acquisitions of commercial items: (Contracting Officer check as appropriate.)

X ___ (1) 52.203-6, Restrictions on Subcontractor Sales to the Government (JUL 1995), with Alternate I (OCT 1995) (41 U.S.C. 253g and 10 U.S.C. 2402).

___ (2) 52.219-3, Notice of HUBZone Small Business Set-Aside (Jan 1999) (15 U.S.C. 657a).

___ (3) 52.219-4, Notice of Price Evaluation Preference for HUBZone Small Business Concerns (JUL 2005) (if the offeror elects to waive the preference, it shall so indicate in its offer) (15 U.S.C. 657a).

___(4) (i) 52.219-5, Very Small Business Set-Aside (JUNE 2003) (Pub. L. 103-403, section 304, Small Business Reauthorization and Amendments Act of 1994).

____(ii) Alternate I (MAR 1999) to 52.219-5.

____(iii) Alternate II to (JUNE 2003) 52.219-5.

___ (5)(i) 52.219-6, Notice of Total Small Business Set-Aside (JUNE 2003) (15 U.S.C. 644).

___ (ii) Alternate I (OCT 1995) of 52.219-6.

___ (iii) Alternate II (MAR 2004) of 52.219-6.

___ (6)(i) 52.219-7, Notice of Partial Small Business Set-Aside (JUNE 2003) (15 U.S.C. 644).

___ (ii) Alternate I (OCT 1995) of 52.219-7.

___ (iii) Alternate II (MAR 2004) of 52.219-7.

___ (7) 52.219-8, Utilization of Small Business Concerns (MAY 2004) (15 U.S.C. 637 (d)(2) and (3)).

___ (8)(i) 52.219-9, Small Business Subcontracting Plan (JUL 2005) (15 U.S.C. 637(d)(4)).

___ (ii) Alternate I (OCT 2001) of 52.219-9

___(iii) Alternate II (OCT 2001) of 52.219-9.

___ (9) 52.219-14, Limitations on Subcontracting (DEC 1996) (15 U.S.C. 637(a)(14)).

___ (10)(i) 52.219-23, Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns (SEP 2005) (10 U.S.C. 2323) (if the offeror elects to waive the adjustment, it shall so indicate in its offer).

(ii) Alternate I (JUNE 2003) of 52.219-23.

___ (11) 52.219-25, Small Disadvantaged Business Participation Program--Disadvantaged Status and Reporting (OCT 1999) (Pub. L. 103-355, section 7102, and 10 U.S.C. 2323).

___ (12) 52.219-26, Small Disadvantaged Business Participation Program--Incentive Subcontracting (OCT 2000) (Pub. L. 103-355, section 7102, and 10 U.S.C. 2323).

___ (13) 52.219-27, Notice of Total Service-Disabled Veteran-Owned Small Business Set-Aside (May 2004).

___ (14) 52.222-3, Convict Labor (JUNE 2003) (E.O. 11755).

X ___ (15) 52.222-19, Child Labor--Cooperation with Authorities and Remedies (Jun 2004) (E.O. 13126).

X ___ (16) 52.222-21, Prohibition of Segregated Facilities (FEB 1999).

X ___ (17) 52.222-26, Equal Opportunity (APR 2002) (E.O. 11246).

X ___ (18) 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (DEC 2001) (38 U.S.C. 4212).

X ___ (19) 52.222-36, Affirmative Action for Workers with Disabilities (JUN 1998) (29 U.S.C. 793).

X ___ (20) 52.222-37, Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (DEC 2001) (38 U.S.C. 4212).

___ (21) 52.222-39, Notification of Employee Rights Concerning Payment of Union Dues or Fees (DEC 2004) (E.O. 13201).

___ (22)(i) 52.223-9, Estimate of Percentage of Recovered Material Content for EPA-Designated Products (AUG 2000) (42 U.S.C. 6962(c)(3)(A)(ii)).

___ (ii) Alternate I (AUG 2000) of 52.223-9 (42 U.S.C. 6962(i)(2)(c)).

___ (23) 52.225-1, Buy American Act--Supplies (JUNE 2003) (41 U.S.C. 10a-10d).

___ (24)(i) 52.225-3, Buy American Act--Free Trade Agreements--Israeli Trade Act (Jan 2005) (41 U.S.C. 10a-10d, 19 U.S.C. 3301 note, 19 U.S.C. 2112 note, Pub. L. 108-77, 108-78, 108-286).

___ (ii) Alternate I (JAN 2004) of 52.225-3.

___ (iii) Alternate II (JAN 2004) of 52.225-3.

___ (25) 52.225-5, Trade Agreements (Jan 2005) (19 U.S.C. 2501, et seq., 19 U.S.C. 3301 note).

X ___ (26) 52.225-13, Restrictions on Certain Foreign Purchases (MAR 2005) (E.O.s, proclamations, and statutes administered by the Office of Foreign Assets Control of the Department of Treasury).

___ (27) 52.225-15, Sanctioned European Union Country End Products (FEB 2000) (E.O. 12849).

___ (28) 52.225-16, Sanctioned European Union Country Services (FEB 2000) (E.O. 12849).

___ (29) 52.232-29, Terms for Financing of Purchases of Commercial Items (FEB 2002) (41 U.S.C. 255(f), 10 U.S.C. 2307(f)).

____ (30) 52.232-30, Installment Payments for Commercial Items (OCT 1995) (41 U.S.C. 255(f), 10 U.S.C. 2307(f)).

X ____ (31) 52.232-33, Payment by Electronic Funds Transfer--Central Contractor Registration (OCT 2003) (31 U.S.C. 3332).

____ (32) 52.232-34, Payment by Electronic Funds Transfer--Other than Central Contractor Registration (MAY 1999) (31 U.S.C. 3332).

____ (33) 52.232-36, Payment by Third Party (MAY 1999) (31 U.S.C. 3332).

____ (34) 52.239-1, Privacy or Security Safeguards (AUG 1996) (5 U.S.C. 552a).

____ (35)(i) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (APR 2003) (46 U.S.C. Appx 1241 and 10 U.S.C. 2631).

____ (ii) Alternate I (APR 2003) of 52.247-64.

(c) The Contractor shall comply with the FAR clauses in this paragraph (c), applicable to commercial services, that the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or Executive orders applicable to acquisitions of commercial items: [Contracting Officer check as appropriate.]

____ (1) 52.222-41, Service Contract Act of 1965, as Amended (JUL 2005) (41 U.S.C. 351, et seq.).
____ (2) 52.222-42, Statement of Equivalent Rates for Federal Hires (MAY 1989) (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).

____ (3) 52.222-43, Fair Labor Standards Act and Service Contract Act--Price Adjustment (Multiple Year and Option Contracts) (MAY 1989) (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).

____ (4) 52.222-44, Fair Labor Standards Act and Service Contract Act--Price Adjustment (February 2002) (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).

____ (5) 52.222-47, SCA Minimum Wages and Fringe Benefits Applicable to Successor Contract Pursuant to Predecessor Contractor Collective Bargaining Agreements (CBA) (May 1989) (41 U.S.C. 351, et seq.).

(d) Comptroller General Examination of Record. The Contractor shall comply with the provisions of this paragraph (d) if this contract was awarded using other than sealed bid, is in excess of the simplified acquisition threshold, and does not contain the clause at 52.215-2, Audit and Records--Negotiation.

(1) The Comptroller General of the United States, or an authorized representative of the Comptroller General, shall have access to and right to examine any of the Contractor's directly pertinent records involving transactions related to this contract.

(2) The Contractor shall make available at its offices at all reasonable times the records, materials, and other evidence for examination, audit, or reproduction, until 3 years after final payment under this contract or for any shorter period specified in FAR Subpart 4.7, Contractor Records Retention, of the other clauses of this contract. If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for 3 years after any resulting final termination settlement. Records relating to appeals under the disputes clause or to litigation or the settlement of claims arising under or relating to this contract shall be made available until such appeals, litigation, or claims are finally resolved.

(3) As used in this clause, records include books, documents, accounting procedures and practices, and other data, regardless of type and regardless of form. This does not require the Contractor to create or maintain any record that the Contractor does not maintain in the ordinary course of business or pursuant to a provision of law.

(e) (1) Notwithstanding the requirements of the clauses in paragraphs (a), (b), (c), and (d) of this clause, the Contractor is not required to flow down any FAR clause, other than those in paragraphs (i) through (vi) of this paragraph in a subcontract for commercial items. Unless otherwise indicated below, the extent of the flow down shall be as required by the clause--

(i) 52.219-8, Utilization of Small Business Concerns (May 2004) (15 U.S.C. 637(d)(2) and (3)), in all subcontracts that offer further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceeds $500,000 ($1,000,000 for construction of any public facility), the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.

(ii) 52.222-26, Equal Opportunity (April 2002) (E.O. 11246).

(iii) 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (December 2001) (38 U.S.C. 4212).

(iv) 52.222-36, Affirmative Action for Workers with Disabilities (June 1998) (29 U.S.C. 793).

(v) 52.222-39, Notification of Employee Rights Concerning Payment of Union Dues or Fees (DEC 2004) (E.O. 13201).

(vi) 52.222-41, Service Contract Act of 1965, as Amended (Jul 2005), flow down required for all subcontracts subject to the Service Contract Act of 1965 (41 U.S.C. 351, et seq.).

(vii) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (April 2003) (46 U.S.C. Appx 1241 and 10 U.S.C. 2631). Flow down required in accordance with paragraph (d) of FAR clause 52.247-64.

(2) While not required, the contractor May include in its subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.

(End of clause)

252.212-7001 CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS APPLICABLE TO DEFENSE ACQUISITIONS OF COMMERCIAL ITEMS (SEP 2005)

(a) The Contractor agrees to comply with the following Federal Acquisition Regulation (FAR) clause which, if checked, is included in this contract by reference to implement a provision of law applicable to acquisitions of commercial items or components.

X ____ 52.203-3 Gratuities (APR 1984) (10 U.S.C. 2207).

(b) The Contractor agrees to comply with any clause that is checked on the following list of Defense FAR Supplement clauses which, if checked, is included in this contract by reference to implement provisions of law or Executive orders applicable to acquisitions of commercial items or components.

____252.205-7000 Provision of Information to Cooperative Agreement Holders (DEC 1991) (10 U.S.C. 2416).

____252.219-7003 Small, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan (DoD Contracts) (APR 1996) (15 U.S.C. 637).

____ 252.219-7004 Small, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan (Test Program) (JUN 1997) (15 U.S.C. 637 note).

____ 252.225-7001 Buy American Act and Balance of Payments Program (JUN 2005) (41 U.S.C. 10a-10d, E.O. 10582).).

X ____ 252.225-7012 Preference for Certain Domestic Commodities (JUN 2004) (10 U.S.C. 2533a).

____ 252.225-7014 Preference for Domestic Specialty Metals (JUN 2005) (10 U.S.C. 2533a).

____ 252.225-7015 Restriction on Acquisition of Hand or Measuring Tools (JUN 2005) (10 U.S.C. 2533a).

____ 252.225-7016 Restriction on Acquisition of Ball and Roller Bearings (JUN 2005) (------ Alternate I) (APR 2003) (10 U.S.C. 2534 and Section 8099 of Public Law 104-61 and similar sections in subsequent DoD appropriations acts).

____ 252.225-7021 Trade Agreements (JUN 2005) (19 U.S.C. 2501-2518 and 19 U.S.C. 3301 note).

____ 252.225-7027 Restriction on Contingent Fees for Foreign Military Sales (APR 2003) (22 U.S.C. 2779).

____ 252.225-7028 Exclusionary Policies and Practices of Foreign Governments (APR 2003) (22 U.S.C. 2755).

____ 252.225-7036 Buy American Act--Free Trade Agreements--Balance of Payments Program (JUN 2005) (------ Alternate I) (JAN 2005) (41 U.S.C. 10a-10d and 19 U.S.C. 3301 note).

____ 252.225-7038 Restriction on Acquisition of Air Circuit Breakers (JUN 2005) (10 U.S.C. 2534(a)(3)).

_____ 252.226-7001 Utilization of Indian Organizations, Indian-Owned Economic Enterprises, and Native Hawaiian Small Business Concerns (SEP 2004) (Section 8021 of Public Law 107-248 and similar sections in subsequent DoD appropriations acts).

X ____ 252.227-7015 Technical Data--Commercial Items (NOV 1995) (10 U.S.C. 2320).

X ____ 252.227-7037 Validation of Restrictive Markings on Technical Data (SEP 1999) (10 U.S.C. 2321).

____ 252.232-7003 Electronic Submission of Payment Requests (JAN 2004) (10 U.S.C. 2227).

_____ 252.237-7019 Training for Contractor Personnel Interacting with Detainees (SEP 2005) (Section 1092 of Pub. L. 108-375).

X ____ 252.243-7002 Requests for Equitable Adjustment (MAR 1998) (10 U.S.C. 2410).

____ 252.247-7023 Transportation of Supplies by Sea (MAY 2002) (_____Alternate I) (MAR 2000) (_____Alternate II) (MAR 2000) (____Alternate III (May 2002).

____252.247-7024 Notification of Transportation of Supplies by Sea (MAR 2000) (10 U.S.C. 2631).

(c) In addition to the clauses listed in paragraph (e) of the Contract Terms and Conditions Required to Implement Statutes or Executive Orders--Commercial Items clause of this contract (Federal Acquisition Regulation 52.212-5), the Contractor shall include the terms of the following clauses, if applicable, in subcontracts for commercial items or commercial components, awarded at any tier under this contract:

252.225-7014 Preference for Domestic Specialty Metals, Alternate I (APR 2003) (10 U.S.C. 2533a).

252.237-7019 Training for Contractor Personnel Interacting with Detainees (SEP 2005) (Section 1092 of Pub. L. 108-375).

252.247-7023 Transportation of Supplies by Sea (MAY 2002) (10 U.S.C. 2631).

252.247-7024 Notification of Transportation of Supplies by Sea (MAR 2000) (10 U.S.C. 2631)

(End of clause)

STATEMENT OF WORK

1 SCOPE

1.1. The Electronic Dosimetry System is intended to replace the Navy's existing complement of Self-Indicating Pocket Dosimeters. The system is intended to be Commercial Off-The-Shelf (COTS) or Modified COTS.

1.2 This Statement of Work defines the product and support requirements for delivery and expeditious implementation of an Electronic Dosimetry (ED) System suitable for use in all Navy working environments. The ED system comprises (1) self-reading electronic dosimeters and (2) the interfacing dosimetry management and communications hardware and software required for dosimeter programming, issue/access control, data and dose acquisition, analysis, and management - commonly referred to as the reader or reader system.

2 APPLICABLE DOCUMENTS

The following documents, of the issue in effect on the date of invitation for bids or request for proposal, form a part of this Statement Of Work, to the extent specified.

2. Specifications and Standards

MIL-STD-167-1	Mechanical Vibrations of Shipboard Equipment (Type I - Environmental and Type II - Internally Excited)
MIL-STD-196E	Joint Electronics Type Designation System
MIL-STD-461	Requirements for the Control of Electromagnetic Interference Emissions and Susceptibility
MIL-STD-973	Configuration Management (for guidance only)
MIL-STD-1189	Standard Department of Defense Bar Code Symbology
MIL-STD-1399-070	Interface Standard for Shipboard Systems - D.C. Magnetic Field Environment
MIL-STD-1686C	Electrostatic Discharge Control Program for Protection of Electrical and Electronic Parts, Assemblies and Equipment
ISO 9001	Quality systems - Model for quality assurance in design, development, production, installation, and servicing.
IEC 68-2-11	Basis Environmental Testing Procedures, Part 2: Tests-Test Ka: Salt Mist
ANSI Z1.4-1993	Sampling Procedures and Tables for Inspection by Attributes
ANSI N13.11-2000	Personnel Dosimetry Performance-Criteria for Testing
ANSI N42.20-2003	Performance Criteria for Active Personnel Radiation Monitors

2.2 Other Documents, Drawings, and Publications

MIL-HDBK-217F	Reliability Prediction of Electronic Equipment

2.3 Order of Precedence - If a conflict exists between this SOW and the Performance Specification, the Performance Specification takes precedence. If a conflict exists between this SOW and a referenced document within the SOW, this SOW shall take precedence.

2.4 List of Acronyms and Abbreviations

ACO Administrative Contracting Officer
CAGE Commercial and Government Entity
CDRL Contract Data Requirements List
CLIN Contract Line Item Number
DFARS Defense Federal Acquisition Regulation Supplement
DO Delivery Order
FAR Federal Acquisition Regulation
FOB Free on Board
GPETE General Purpose Electronic Test Equipment
MIRR Material Inspection and Receiving Report
NSN National Stock Number
PCO Procuring Contracting Officer
QAR Quality Assurance Representative
SIC Standard Industrial Classification
SLIN Subline Item Number
SM&R Source, Maintenance and Recovery
TMIN Technical Manual Identification Number

3 REQUIREMENTS

3.1 Dosimetry System Capabilities and Performance Requirements

3.1.1 Base/Standard Capabilities and Performance. The dosimetry system shall meet the requirements of this SOW and the Electronic Dosimetry System specification attached. Government testing may be performed to demonstrate compliance (see paragraph 3.4.4). Contractor performed test data shall be made available upon request.

3.1.2 Expanded/Enhanced Capabilities and Performance. Additional capabilities and/or enhanced performance may increase the utility of the ED system, expand it's potential application, and/or satisfy other needs within the Navy. The capabilities of this secton are considered desirable enhancements to the ED System required by Section 3.1.1.

3.1.2.1 Dosimetric Capabilities and Performance

3.1.2.1.1 Photon Shallow Dose Measurement. Dose equivalent rates, from 0.1 mrem/hr thru 200 rem/hr, and shallow (7 mg/cm^2) dose equivalent, from 0 mrem thru 600 rem, for photon energies from 20 keV thru 6 MeV.

3.1.2.1.2 Beta Shallow Dose Measurement. Dose equivalent rates, from 0.1 mrem/hr thru 200 rem/hr, and shallow dose equivalent, from 0 mrem thru 600 rem, for average beta energies from 250 keV thru 1.5 MeV.

3.1.2.2 Dosimeter and Reader System Features or Capabilites

3.1.2.2.1 Dosimeter Size and Weight. Overall maximum dimensions, excluding any clip or retaining/attaching device, and weight, including battery(ies): 10 cm in length, 8 cm in width, and 2.5 cm in thickness; 125g

3.1.2.2.2 Field Reader Alert Indication. Visual *and audible* alert indication.

3.1.2.2.3 Field Reader Power. 115 VAC, 60 hz primary, *with battery backup*.

3.1.2.2.2 Field Reader Access. Appropriate security protections to prevent access to stored data and reports.

3.2 Software.

3.2.1 Licenses. The contractor shall provide system software/firmware (reader/dosimeter control, programming, etc.) license(s) to allow operation of system(s) at multiple, and variable, sites. These licenses shall apply to original software/firmware, as well as any version changes or upgrades offered and approved by the government.

3.2.2 Upgrades. The contractor shall provide to the government, at no additional cost, any upgrades to systems software released during the contract period, i.e. from contract award through the end of the warranty period for the final hardware delivery. Software upgrades are also governed by the Configuration Control requirements stated in this SOW.

3.3 Logistics Support and System Supportability

3.3.1 System Availability. System components (dosimeters, readers, software) shall be highly reliable and require minimal maintenance, as indicated in this SOW and referenced performance requirements (e.g. ED System Performance Specification). Contractor logistics support plans, systems, and infrastructure should exist to sustain the system, and individual components, through its required life and in accordance with requirements of this SOW and referenced performance requirements.

3.3.2 Maintenance / Maintenance Concept. Three levels of maintenance are anticipated for a Navy and Contractor supported dosimetry system.

3.3.2.1 Organizational Level (O-Level) Maintenance. O-Level maintenance is defined as simple maintenance actions performed on the exterior of the equipment that can be effected using standard hand tools, e.g. screw driver, and do not affect calibration. This level would also include fault isolation using system diagnostics and trouble-shooting guides. Maintenance and repairs at this level would be performed by the dosimetry processor and would include actions such as cleaning of external surfaces; replacement of indicator lights, fuses, handles, knobs; adjustment of menu selectable operating parameters (when authorized); etc. Contractor shall provide any recommended routine user level maintenance.

3.3.2.2 Intermediate Level (I-Level) Maintenance. I-Level maintenance consists of dosimeter response and calibration checks and would be performed by Navy Calibration Laboratories. Contractor shall provide any recommended response and calibration check procedures.

3.3.2.3 Depot Level (D-Level) Maintenance. D-Level maintenance consists of maintenance and repairs above O- and I- levels. D-Level maintenance would be performed by the manufacturer and includes items such as repair and/or replacement of dosimeters and readers and software upgrades.

3.3.3 Training – Operation and Maintenance. The Contractor shall conduct an operations and maintenance training course at the Norfolk Naval Shipyard. The training shall be designed to provide personnel with the necessary knowledge, skills, and practical abilities required to properly operate and maintain (O-Level) the system. Personnel satisfactorily completing this course should be qualified to instruct other DON personnel in the system's operation and maintenance. As a minimum, the material covered in the course shall include the following:

a) Theory of Operation
b) System Functions and Features
c) Dosimeter Programming
d) Retrieval and Interpretation of Data
e) User and Processor Responsibilities
f) System Diagnostics, Troubleshooting, and Quality Checks
g) Parts replacement, adjustments, cleaning requirements and methods

The scheduled date of the class shall be mutually determined by the government and the contractor. The government shall confirm the date via letter at least thirty (30) days prior to start of the class.

3.3.4 Configuration Management

3.3.4.1 Configuration Control.

3.3.4.1.1 The ED System shall be of stable design such that hardware and/or software upgrades are not required to deliver and maintain the level of performance and capabilities currently required by this SOW and referenced performance requirements (e.g. ED System Performance Specification).

3.3.4.1.2 The product baseline configuration of items supplied under this contract is established by requirements stated in this SOW, the referenced ED performance specification, and the product samples provided. It is the intent of the government that all hardware and software deliverables be of identical configuration. System (hardware and/or software) configuration, model, or version changes, modifications, revisions, or upgrades shall not be offered for *acceptance*, during the contract and warranty period, without prior approval from the government. Requests for approval must completely describe the proposed change and shall address, as a minimum, its purpose and scope/effectivity; effects on performance (include test data verification where appropriate), logistics support (e.g. maintenance, replacements, training, etc.), operational employment (safety, reliability, maintainability, service life, EMI, operating/use procedures, etc.), software, interfaces (human, equipment, network), and costs (installation/setup, implementation, life cycle, re-procurement, etc.); impact on current contract (costs/savings, schedule), etc. MIL-STD-973 may be used as a guide in assembling/providing the type of information needed to support change requests. If the Government deems testing is required to verify that proposed modifications or upgrades meet contractual requirements, the Contractor shall provide samples of the modified or upgraded units, along with any contractor performed test results, in the configuration planned to be delivered/offered for acceptance, for Government testing and aproval prior to producing additional, or replacing existing, units. Upon government approval, the contractor shall agree to replace production units delivered, to the extent required by the government, with the approved production configuration, thus establishing the new product baseline for the contract.

3.3.4.2 Configuration Identification

3.3.4.2.1 Government Nomenclature and Serialization. Nomenclature assigned to dosimetry system equipment shall be as specified in MIL-STD-196E, Joint Electronics Type Designation System (JETDS). Product and manufacturer specific information required for assignment of JETDS nomenclature shall be provided by the Contractor, to the Contracting Agency. Government serial numbers shall be requested by the Contractor (from the Contracting Agency) concurrently with the nomenclature assignment requests.

3.3.4.2.2 Component Labeling. Government identified serial numbers (dosimeters only), nomenclature, and contract number shall be stamped, imprinted, or embossed on the component (dosimeters and readers) housings, or a permanently attached identification plate (for readers only), in a clear and legible manner. (See ED performance specification for specific dosimeter labeling requirements.)

3.3.5 Technical Data

3.3.5.1 Maintenance Supplies and Parts Lists. The Contractor shall provide a list of recommended maintenance supplies, materials, spare and repair parts for O- and I-Level maintenance needed to maintain the EDS in an operationally ready condition with a minimum amount of down time for a service period represented by the established Mean-Time-Between-Failures (MTBF) for each item. Unit prices, failure rates, and second sources of supply shall be provided for all items listed and any Long Lead Time Items shall be identified. If any parts, supplies, or materials are proprietary or otherwise unavailable from other sources, these shall be identified as such. Items should be identified by part number, name, and description.

3.3.5.2 Maintenance Procedures and Recommended Actions. Relative to the Navy's Maintenance Concept (O- and I- Level), the Contractor shall identify, and provide procedures for, any routine user level maintenance, response and calibration checks, etc., required or recommended to maintain the ED system in optimum condition .

3.3.5.3 Tools and Test Equipment Lists – The Contractor shall provide a list, in the contractor's preferred format, which identifies the tools and test equipment required to maintain the dosimetry system components.

3.3.5.4 Drawings and Procedures- The contractor shall provide the drawings, plans, and procedures deemed necessary by the manufacturer to permit Government maintenance, repair, and calibration checks of equipment in accordance with the specified maintenance concept.

3.3.5.5 Manuals

3.3.5.5.1 Technical Manual - The Contractor shall provide a dosimeter and reader Technical Manual (or set of manuals), to include any required Supplemental Data, with each dosimeter reader delivered, sufficient to support setup, checkout, operation, maintenance, testing and troubleshooting, calibration checks, etc. of readers and dosimeters in accordance with requirements specified in this Statement Of Work and the ED performance specification. Spare parts lists and specifications and electrical wiring diagrams/schematics shall be provided if available.

3.3.5.5.2 User's Manual – The Contractor shall provide a dosimeter and reader User's Manuals (or set of manuals) with each dosimeter reader delivered. The User's Manuals should provide all the information and instruction necessary to safely and effectively use or operate all dosimetry system end items (dosimeters, readers, interfaces, and software).

3.3.5.5.3 Manual Format – Manuals provided with each dosimeter reader delivered shall be hard copy. Additionally, manuals shall be provided in electronic format, Adobe Portable Document Format (PDF), with unrestricted use and distribution rights. Information must be capable of being imported (copied and pasted) into Navy developed operating procedures.

3.4 Quality Assurance

3.4.1 Quality Assurance Program - The contractor shall maintain a quality assurance program for the duration of the contract to ensure that all supplies and services are in compliance with the technical specification and other contract documents.

3.4.2 ISO 9000 Certification - The manufacturer should be ISO 9001 certified in design, development, and manufacture of its dosimetry system/products, at the manufacturing plant location.

3.4.3 Electrostatic Discharge (ESD) Control Program - An ESD Control Program shall be in place to protect against electrostatic discharge damage or disruption during assembly, use, or servicing of the system. MIL-STD-1686C is referenced for consideration. Description and details of Contractor's program shall be made available upon request.

3.4.4 System Inspections and Testing - Product verification testing may be performed by the government to assure compliance with system performance requirements and the contractor's quality system. Results of these tests may form the bases for acceptance or rejection of deliveries (initial and/or warranty repaired/replacement products) and/or returns under the warranty provisions.

3.4.4.1 Inspections and tests may be performed on lot or batch samples as prescribed in ANSI/ASQC Z1.4-1993, Sampling Plan and Tables for Inspection by Attributes. Unless specifically indicated in this SOW or ED Performance Specification, compliance will be based on test results obtained using nationally and/or internationally accepted testing protocols/ procedures, tailored for the specific performance requirements stated in this SOW and ED performance specification.

3.4.4.2 The contractor is required to submit product that meets all contract and specification requirements and that is the same as the product provided to the Government as product samples. Government performed testing

does not relieve the contractor of responsibility for meeting all contract product requirements. The contractor's quality system, including manufacturing processes, quality control measures, and inspection systems, will be established and operated to consistently produce products that meet all requirements. Absence of any specific inspection or process control requirements in the contract does not relieve the contractor of responsibility for assuring that all products or supplies submitted to the Government for acceptance conform to all requirements of the contract. The contractor shall maintain records evidencing all inspections made under it's system and the outcome, and these records shall be made available to the Government upon request.

3.4.4.3 Federal Acquisition Regulation (FAR) clause 52.246-2, "Inspection of Supplies—Fixed Price," is hereby incorporated by reference into the contract if not otherwise called out in the purchase document.

3.5 Warranty

3.5.1 Period and Coverage. The ED System, to include all components, shall have as a minimum, a one year warranty that covers repairs and replacements of system components that fail to deliver and maintain the capabilities, performance, and physical integrity required. The warranty period for each item (initial delivery, repaired, or replacement item) shall begin upon its acceptance by the Government. Warranty action may be implicated for a single product whose failure is discovered during normal use or for a large quantity of products that fail Inspections and Testing per SOW paragraph 3.4.4.

3.5.2 Telephone Support. A toll-free telephone/hotline service should be available to provide technical assistance to up to four (4) Navy Technical/User Representatives (2 primary, 2 secondary) regarding operation, maintenance, and troubleshooting of the system. Telephone support should be available Monday through Friday, excluding Federal holidays, from 8:00 A.M. to 5:00 P.M. local time (Contractor's time zone), as a minimum, for the duration of the equipment warranty period.

3.5.3 Upgrades and Modifications. During the warranty period, any system or component modifications or upgrades proposed to maintain or return system performance to the level required by this contract shall be implemented without additional cost to, and when authorized by, the Government. Authorization requests for proposed changes and upgrades shall be processed in accordance with the change/configuration control requirements of paragraph 3.3.4.1.

3.5.4 Service Coordination. All warranty services shall be coordinated through the Contracting Agency's Technical Point of Contact or Contracting Officer's [Technical] Representative (COR/COTR).

3.5.5 Response Time. The required response time for warranty service shall be ten (10) calendar days. Response time is defined as the elapsed time from the notification of need for services to delivery of a satisfactorily operating system or end item to the user within the continental United States (CONUS).

3.5.6 Costs. Warranty services, to include labor associated with repairs at the contractor site, or customor site if deemed necessary, as well as telephone technical support, shall be provided at no additional cost to the Government. The Contractor shall pay for all parts and materials as well as all associated shipping and travel (including any associated labor) costs to and from destinations within CONUS.

SPECIFICATIONS

This specification defines the requirements for the Electronic Dosimetry System.
Note that requirements include indicators of relative importance (i.e. PL1, PL2, or PL3), which are defined in Evaluation Factors.

1 System Configuration Description

1.1 The electronic dosimetry system comprises (1) self-reading electronic dosimeters and (2) the interfacing dosimetry management and communications hardware and software required for dosimeter programming, issue/access control, data and dose acquisition, analysis, and management - commonly referred to as the reader or reader system.

1.2 Dosimeters are intended to be worn attached to personnel clothing, in all Navy work environments, providing personnel with immediate radiation exposure information. Dosimetry management and communications equipment, i.e. readers, will be used in both field and laboratory environments, with differing minimum functionality and physical requirements.

2 Integration. All system components, hardware and software, shall be fully functionally and physically integrated and compatible.

3 Materials

3.1 Corrosion Resistance. All parts and materials used should be corrosion resistant, either inherently or by use of suitable non-hazardous material surface treatments, or otherwise protected from the corrosive elements expected to be encountered during use as indicated in this document. [PL3]

3.2 Self-Irradiation. The system should contain no components/materials capable of delivering a total inherent radiation contribution of 0.06 mrem/day or more. [PL2]

3.3 Mercury. Mercury or mercury containing compounds should not be intentionally added or come in direct contact with hardware or supplies furnished. [PL3]

3.4 Electrostatic Discharge (ESD). Materials used should minimize the potential for damage or disruption arising from electrostatic discharge from personnel using or servicing of the system. [PL3]

3.5 Response of Photon Instrument to Neutron Radiation. The response to neutrons shall be less than 5% of the delivered neutron dose equivalent. The materials used shall have minimum appreciable neutron cross-section wherever possible. [PL1]

4 Subsystems and components

4.1 Dosimeter

4.1.1 Dosimetric Performance and Capabilities

4.1.1.1 Capability. The dosimeter shall be capable of detecting, measuring, recording, and reporting exposure to ionizing radiation as described below:

4.1.1.1.1 Deep dose (1000 mg/cm2) equivalent rates, from 0.1 mrem/hr thru 200 rem/hr, and deep dose equivalent from 0 mrem through 200 Rem, for photon energies from 20 keV thru 6 MeV. [PL1]

4.1.1.1.2 Where more than one detector is used for measurement over the required range, switching between the detectors shall be automatic. [PL1]

4.1.1.2 Performance and proficiency. The dosimeter shall meet the radiation dose measurement performance requirements provided below.

4.1.1.2.1 Reference radiation and dose point. Unless otherwise specified, dosimeter response and performance requirements are based on NIST traceable Cs-137 (photon) irradiations of dosimeters on phantom IAW ANSI N13.11.

4.1.1.2.2 Dose retention.

4.1.1.2.2.1 Following an exposure period, the dose indicated by the dosimeter shall not change by more than ±2% or 0.1 mrem, whichever is greater, over the next 8 hours, excluding background contribution. [PL1]

4.1.1.2.2.2 Upon return of its principle power, following a 24 hour power loss, the dose indicated by the dosimeter shall not have changed by more than ±2% or 0.1 mrem, whichever is greater, from the pre-power loss indication, excluding background contribution. [PL1]

4.1.1.2.3 Lower Limit of Detection / Detection Threshold. The detection threshold and resolution shall not exceed 1 mrem for Cs-137 photons. [PL1]

4.1.1.2.4 Self-Irradiation/False Signal Due to Inherent Effects. The total inherent radiation contribution due to dosimeter construction materials and electronic noise should be less than 0.06 mrem/day. [PL2]

4.1.1.2.5 Accuracy. Over the required dose and dose rate equivalent range, the deep dose equivalent error shall not exceed, for Cs-137, ± 10% or 1 mrem, whichever is greater. [PL1]

4.1.1.2.6 Variation of response with energy.

4.1.1.2.6.1 Photon - Deep dose equivalent response. The deep dose equivalent response to incident photon radiation of energy between 80 keV to 1. 5 MeV shall not differ by more than ±15% from the response to the Cs-137 reference irradiation. Deep dose equivalent response to incident photon radiation between 20 keV to 80 keV, and from 1.5 MeV to 6 MeV shall not differ by more than ±30% from the response to the Cs-137 reference irradiation. The energy response shall be stated and graphically indicated over the energy range of 20 keV to 10 MeV, in user manuals. [PL1]

4.1.1.2.7 Variation of response with angle of incidence.

4.1.1.2.7.1 Photon - Deep dose equivalent response. For two planes, one horizontal and one vertical through the face of the dosimeter, the response at angles $\alpha = 0^{\circ}$ to $\pm 75^{\circ}$ relative to the response at $\alpha = 0^{\circ}$, should be within ±20%, for a reference Cs-137 irradiation. [PL2]

4.1.1.2.8 Saturation / Overrange Response. Saturation level shall be greater than 400 rem/hr. [PL1]

4.1.1.2.9 Precision. The EPD shall be exposed to dose equivalent of 0.1 rem, 1 rem, and a maximum of 100 rem using Cs-137. At each of these dose equivalent levels, ten replicate exposure measurements shall be obtained, and the variance of the measurement calculated. The variance at each level shall not exceed ± 5%. [PL1]

4.1.2 Electrical and Electronic

4.1.2.1 Visual indication / display. The following should be capable of being displayed:

a) Dose, in units of rem or mrem, from 0 mrem to at least 200 rem. Display should be 4 digit auto-ranging from 0.1 mrem to at least 200.0 rem (0.1 – 999.9 mrem, 1.000 – 200.0 rem). [PL2]

b) Dose rate, in units of mrem/hr or rem/hr, from 0.1 mrem/hr thru at least 200 rem/hr. Display should be 4 digit auto-ranging from 0.1 mrem/hr – 200.0+ rem/hr (0.1 – 999.9 mrem/hr, 1.000 – 200.0+ rem/hr). [PL3]

c) Alarm and alert/warning indications identified herein (e.g. low battery, unit malfunction, dose/dose rate alert, etc.) [PL3]

d) Overrange/saturation indication. [PL3]

e) Deep (10.0 mm tissue depth) dose equivalent indication (selectable for display). [PL3]

4.1.2.2 Alarms.

4.1.2.2.1 Two alarms/alerting indicators shall be provided; one shall be audible and one shall be either visual or vibratory. [PL1]

4.1.2.2.2 The frequency of the audible alarm should be within the range of 1000 – 4000 Hz. Where an intermittent alarm is provided, the signal interval should not exceed 2 s. The alarm volume at a distance of 30 cm from the alarm source should be at least 80 dB (A). The A-weighted sound level should not exceed 100 dB (A) at 30 cm from the alarm source. [PL3]

4.1.2.2.3 Visual (and vibratory) alarms/indicators should alert / draw the attention of the wearer. [PL3]

4.1.2.2.4 Alarm levels should either be set solely via the reader system or it should be possible to disable any alarm setting/changing capabilities otherwise available or accessible to the wearer (e.g. external switches). [PL2]

4.1.2.2.5 Activation of alarm/indicators shall neither reset the dosimeter, nor freeze the display, nor terminate dose accumulation. [PL1]

4.1.2.2.6 Alarm conditions. Alarms/alerting indicators shall be activated upon the following conditions:

a) Programmed setting. Alarms/indicators shall be activated when selected/programmed conditions are met (see dosimeter Programmability section.) [PL1]

b) Low battery. A low battery warning/condition shall be indicated when the low battery set-point is reached (at least 24 hours before failure). The 'low battery' warning indication shall remain present until the battery is replaced. For purposes of this requirement, the external (to the dosimeter) operating environment is described as follows: 5 mrem/hr average radiation field, high dose/dose rates resulting in 40 minutes of high [dose/dose rate] level alarms, 8 hours of low ambient light (i.e. additional display lighting may be required, depending upon display technology). Normal operation also includes internal dosimeter functions that may occur infrequently, such as alarms or indications resulting from self diagnostics. [PL1]

c) Inaccurate or suspect operation. Indication shall be given of any condition that renders the dosimeter incapable of performing to the requirements of this document (e.g. accurately measuring and displaying dose, alarming at dose or dose rate alarm set-points, etc.) or its capabilities become suspect. Such conditions might include low power, detector malfunction, high dose rate fields, expiration of calibration, etc. [PL1]

4.1.2.3 Self diagnostics. Dosimeter should support internal self diagnostics and quality control checks. This should be an automatic function. [PL3]

4.1.2.3 Data

4.1.2.4.1 Records. The following data / records shall be captured / stored by the dosimeter and shall be available for retrieval by the reader systems. Records of dose and dose rate measurements, alarm events, etc., are considered to include time and date, as part of the record.

a) Dose - current measurement, previous 300 non-consecutively repeated measurements (i.e. non-changing dose and dose rate values are not stored), maximum measurement since last reset, total accumulated dose for current issue, total accumulated dose for dosimeter. [PL2]

b) Dose rate - current measurement and maximum measurement since last reset [PL3]

c) Calibration date and data / parameters [PL3]

d) Issue information, e.g. dosimeter serial no., issue time and date [PL3]

e) Programmed settings, operating parameters, and associated collected data (see dosimeter Programmability section.) [PL1]

f) Alarm/warning events (previous 15 events, since last reset) [PL1]

g) Battery charge/level status [PL1]

4.1.2.4.2 Storage medium / technology. The dosimeter should use re-programmable, non-volatile memory (e.g. EEPROM), capable of retaining data for a minimum of 5 years, with sufficient capacity to store all dosimeter programming parameters, issue data, and a minimum of 400 dose measurement records, alarm events, and internally generated diagnostics data. [PL3]

4.1.2.4.3 Security. Access to stored data shall be restricted to prevent unauthorized changes and minimize potential for corruption or loss. [PL1]

4.1.2.5 Communications

4.1.2.5.1 Data. The dosimeter should be capable of transferring (transmitting and receiving) data, operating parameters/settings, programming instructions, etc. to and from the reader systems described in this document. [PL3]

4.1.2.5.2 Interface. The communications technology employed (hardware, firmware, software) shall deliver the following performance:

4.1.2.5.2.1 Compatibility. The communications interface shall be physically and functionally compatible with the reader systems hardware and software, as described by requirements provided in this document. [PL1]

4.1.2.5.2.2 Initialization. The dosimeter should be capable of automatically communicating with the reader, once introduced into the reader communications port or zone. [PL3]

4.1.2.5.2.3 Communications and data transfer reliability.

4.1.2.5.2.3.1 Data transfer (transmission and reception) between dosimeter and reader should be accomplished within 10 sec, exclusive of time attributable to user interaction, of dosimeter introduction into the reader communications port or zone. This transfer rate applies to the transfer of a single dosimeter record/reading, in the operating environment described by requirements of this document, and includes any re-transmissions or error checking required to guarantee data integrity. [PL3]

4.1.2.5.2.3.2 For transfer of dosimetric data (e.g. dose, dose rate, etc.), the difference between the dosimeter indication and the value displayed by the reader shall be no more than plus or minus one least significant digit. [PL1]

4.1.2.5.2.3.3 Appropriate error checking, data re-transmission, buffering, encryption, etc. should be employed to ensure secure and reliable data transmission and to guarantee data integrity. [PL3]

4.1.2.5.2.3.4 Communications link/interface should meet the performance requirements of this document for a minimum of 10,000 read events. For purposes of this requirement, a read event begins with introduction of a dosimeter into the reader communications port or zone, continues through to completion of data transfers, and ends with the removal of the dosimeter from the communications port/zone. [PL3]

4.1.2.6 Programmability.

4.1.2.6.1 Programmable functions. The following dosimeter operating functions and parameters shall be settable/programmable via reader systems described in this document.

4.1.2.6.1.1 Alarms / Indicators.

4.1.2.6.1.1.1 High Level Alarms

a) Dose and dose rate alarm set-points [PL1]

b) Output type (audio/visual/vibrate) [PL3]

c) Silencing capability (user operable) after activation [PL2]

4.1.2.6.1.1.2 Low battery

a) Charge remaining (volts) warning set-point [PL3]

b) Output type (audio/visual/vibrate) [PL3]

c) Silencing capability (user operable) after activation [PL3]

4.1.2.6.1.1.3 Administrative Controls, malfunction/suspect operation

a) Calibration due warning/alert set-point [PL2]

b) Administrative (e.g. read required date) [PL3]

c) Internal diagnostics result warnings/alarms [PL3]

d) Output type (audio/visual/vibrate) [PL3]

e) Silencing capability (user operable) after activation [PL3]

4.1.2.6.1.1.4 Accuracy of Alarm to Set Value. When the instrument is subjected to dose equivalent rates of 0.80 of the dose equivalent rate alarm set point for ten (10) minutes, the alarm should not be activated for more than 10% of the period of the test. At a dose equivalent rate of 1.2 of the alarm level set point, the alarm should be activated for 90% of the period of the test within 5 seconds. [PL2]

4.1.2.6.1.2 Dosimeter data and operating parameters

a) Calibration date (or due date) [PL3]

b) Return for read date/time [PL3]

c) Dosimeter serial number [PL3]

d) User identification number [PL3]

e) Dose event storage interval and range [PL3]

f) Alarm event storage and range [PL3]

g) Reset of 'issue period' dose accumulation, maximum dose & dose rates, alarm/alert events. (Reset of 'issue period' dose accumulation may be automatic, upon dosimeter routine issue/return via the reader system. Total dosimeter dose accumulation (of all issue periods) should be non-resetable by routine issue and return) [PL3]

h) Display option settings and event timers; i.e. display – data & message fields/types, decimal places (e.g. one decimal place on mrem scale), etc.; timers – frequency of diagnostics checks, read storage intervals, etc. [PL3]

i) Functionality of external switches (enable/disable capability to select features via external switches) [PL3]

j) Wireless networking communications parameters – if wireless networking capability exists, this feature should be capable of being disabled. [PL3]

4.1.2.6.2 Access. Operating parameters shall be menu selectable, via authorized reader systems, which shall contain appropriate hierarchical security protections, such as usernames and passwords, to provide restricted access and prevent unauthorized changes to software or firmware. [PL1]

4.1.2.7 Power. The dosimeter power source shall be commercial-off-the-shelf (COTS) battery(ies), capable of sustaining normal dosimeter operation (i.e. meeting the performance requirements of this document) for a minimum of 1500 hours continuous. For purposes of this requirement, the external (to the dosimeter) operating environment is described as follows: 5 mrem/hr average radiation field, high dose/dose rates resulting in 40 minutes of high [dose/dose rate] level alarms, 8 hours of low ambient light (i.e. additional display lighting may be required, depending upon display technology). Normal operation also includes internal dosimeter functions that may occur infrequently, such as alarms or indications resulting from self diagnostics. [PL2]

4.1.3 Physical

4.1.3.1 Compatibility. The dosimeter should communicate and be physically and functionally compatible with all readers specified in this document. [PL3]

4.1.3.2 Size. Overall dimensions, excluding any clip or retaining/attaching device, should not exceed 15 cm in length, 8 cm in width, and 3 cm in thickness. (Preferred maximum dimensions: 10 cm in length, 8 cm in width, and 2.5 cm in thickness.) [PL2]

4.1.3.3 Weight. The weight of the dosimeter should not exceed 200 g, including battery(ies). Less than 125g preferred to accommodate wearing the dosimeter on other body locations. [PL2]

4.1.3.4 Materials/Construction

4.1.3.4.1 Dosimeter design should be such that access to its internals is limited to the battery compartment. [PL3]

4.1.3.4.2 Materials of construction should comply with requirements stated in the Materials section of this document. [PL3]

4.1.3.5 Identification. The dosimeter should be identified using a unique, customer defined format, alpha-numeric serial number, readable by both a bar code scanner and the wearer, without requiring disassembly or operation of the dosimeter. [PL3]

4.1.3.5.1 The bar code should have Human Readable Interpretation (HRI) printed above, with 0.10 inch high characters, and should be compatible with standard commercially available barcode scanning equipment. For readability requirements, Mil-Std-1189 should be used for guidance. [PL3]

4.1.3.6 External controls (buttons, switches, etc.). External controls shall be clearly identified, be adequately protected from accidental or unauthorized operation, and have provisions to reduce the possibility of inadvertent changes in controls/settings and avoid interference with the dose equivalent integrating function, when operated. [PL2]

4.1.3.7 Display. Display shall provide clearly visible and instantly recognizable digital indication, while attached at chest level to the clothing of a user with normal (or corrected) visual acuity, under both high and low level light conditions; e.g. typical of the performance characteristics of light-emitting diode (LED) and backlit liquid crystal displays (LCD). [PL1]

4.1.3.8 Battery compartment. Access to the battery compartment should be suitably restricted/protected to prevent inadvertent or unintentional battery removal or disconnect. [PL2]

4.1.3.9 Method of attachment. A replaceable clip shall be provided to securely affix the dosimeter to clothing pockets and lanyards, with attention given to the necessary orientation of the detector, alarms, and indicators. Clip shall be of sufficient strength to resist separation of clip from dosimeter under a constant force of 5 pounds in any direction. Clip shall be of sufficient strength to resist separation of clip-dosimeter assembly from mounting/attaching surface/object; e.g. clothing pocket, lanyard. [PL2]

4.1.3.10 Reference Point Marking. The instrument case should have markings indicating the position of the effective center of detection on both the front (or back) and side of the instrument. The reference orientation with respect to the wearer should also be marked on the instrument. [PL3]

4.1.4 Environmental Effects

4.1.4.1 Temperature and Relative Humidity. Dosimeter response should meet all physical and performance requirements under the following conditions:

(Operational)

a) when in use, and following use, at any temperature in the range of -25°C to +50°C, and 95% RH at ≥25°C [PL2]

b) when taken from +20°C to +50°C, and from +20°C to -10°C, each in less than 5 minutes [PL2]

c) when taken from +50°C to +20°C, and from -10°C to +20°C, each in less than 5 minutes [PL2]

d) when in use, and following use, at +35°C and any relative humidity (RH) level in the range of 20% to 90% RH [PL2]

(Storage)

e) when stored, and following storage, at any temperature in the range of -40 to +70°C; 95% RH at ≥25°C [PL2]

Operational is defined as receiving and recording exposure or being read or programmed.

Storage is defined as not being read/programmed or used for dose monitoring for a minimum of 24 hours.

4.1.4.2 Altitude. The dosimeter shall withstand the low pressures experienced during transportation by air and operation at high elevations.

4.1.4.2.1 Dosimeter performance should not be affected following a twelve hour storage period in a low pressure environment of 57.2 kPa (15,000 feet). [PL2]

4.1.4.2.2 Dosimeter performance should not be affected while operating in a low pressure environment of 69.5 kPa (10,000 feet). [PL2]

4.1.4.3 Vibration. Dosimeter should meet all physical and performance requirements during and following the environmental vibration conditions that may be encountered aboard naval ships. The conditions and associated tests described in Mil-Std-167-1 for Type I Environmental Vibration may be used for guidance in addressing this requirement. [PL2]

4.1.4.4 Shock. The dosimeter should meet all physical and performance requirements following five (5) drops from a height of 1.5m onto a steel floor on any side or face. [PL2]

4.1.4.5 Static Load. The dosimeter should be capable of withstanding a distributed static load of 150 lbs. without damage, excluding clip. [PL3]

4.1.4.6 Immersion / Submersion. The dosimeter should meet all physical and performance requirements while completely submerged under 20 meters of seawater, with optional/accessory water-proof container/pouch allowed. Audible and vibration alarm requirement not applicable for this use. [PL3]

4.1.4.7 Moisture Resistance. The dosimeter should meet all physical and performance requirements during and following exposure to water spray, as described in ANSI N42.20-2003. [PL2]

4.1.4.8 Salt Fog. The dosimeter should meet all physical and performance requirements during and following exposure to a salt fog environment, as described in IEC-68-2-11Ka, 48 hour duration. [PL2]

4.1.4.9 Electromagnetic Interference. The dosimeter shall meet the Control of Electromagnetic Interference requirements of MIL-STD-461 for surface ships and submarines and the DC Magnetic Field Environment requirements of MIL-STD-1399, Section 070, Part 1. The specific MIL-STD-461 requirements are RS101, RS103 (2 MHz to 18 GHz @ 200 V/m), and RE102 (for active dosimetry only). The MIL-STD-1399, Section 070, Part 1, requirement is 1600 A/m. [PL1]

4.1.4.10 Electrostatic Discharge. The dosimeter should meet all physical and performance requirements during exposure to electrostatic discharges at intensities of up to 6 kV for contact and 8 kV for air. [PL2]

4.1.5 Reliability and Maintainability

4.1.5.1 Calibration

4.1.5.1.1 Dosimeter shall be initially calibrated by vendor using sources traceable to the National Institute of Standards and Technology (NIST). [PL1]

4.1.5.1.2 Dosimeter should deliver the required level of performance / proficiency over its required life expectancy, without requiring recalibration. [PL2]

4.1.5.1.3 Calibration should not be affected by removal or replacement of battery / power source. [PL2]

4.1.5.2 Periodic Maintenance. Periodic maintenance requirements should be limited to battery replacement and wiping down of exterior surfaces. [PL2]

4.1.5.3 Reliability / Life expectancy. Dosimeter should meet all physical, functional, and performance requirements for a period of 10 years minimum, based on a duty cycle of 40,000 hours of normal operation and 10,000 read cycles. [PL3]

4.2 Reader Systems

4.2.1 Laboratory Reader System

4.2.1.1 Configuration. The laboratory reader system comprises the interfacing dosimetry management and communications hardware and software required for dosimeter programming, issue/access control, data and dose acquisition, analysis, and management.

4.2.1.2 Electrical and Electronic

4.2.1.2.1 The laboratory reader system should be PC based, to take full advantage of its [PC] familiar user I/O interfaces, display capabilities, open architecture, standard communications interfaces, and accommodation of readily available and familiar data analysis and presentation tools. [PL2]

4.2.1.2.2 System (hardware and software) compatibility and interface requirements are described below in terms of the minimum capability PC configuration(s) that will be used in the Navy for this [reader system] purpose: [PL3]

Typical Capability PC Configuration(s)

- Microsoft Windows NT 4.0 SP6 through XP operating system
- 800 MHz through 3 GHz microprocessor
- 64 through 512 MB RAM
- GB hard drive
- CD Read/Write drive
- 3.5, 1.44 MB floppy drive
- Serial and USB port
- PS-2 mouse port
- Standard full-size keyboard and 2 button mouse
- 17" color monitor

4.2.1.2.3 Communications

4.2.1.2.3.1 Data. The reader system should be capable of transferring (transmitting and receiving) data, operating parameters/settings, programming instructions, etc. to and from the dosimeters and field reader system described in this document, as well as information management systems across data networks. [PL2]

4.2.1.2.3.2 Interface(s) and data/program transfer media. The laboratory reader system should be capable of communicating with the dosimeter directly and with the field reader both directly, via data network connection, and

indirectly, via portable data/program transfer media. The technology employed (hardware, firmware, software) should deliver the following performance: [PL3]

4.2.1.2.3.2.1 Compatibility. The communications interface(s) and data/program transfer media should be physically and functionally compatible with the dosimeter and reader systems hardware and software, as described by requirements provided in this document, as well as standard data networks and interfaces. [PL3]

4.2.1.2.3.2.2 Initialization. The reader system should be capable of automatically communicating with the dosimeter, once introduced into the reader's communications port or zone. [PL3]

4.2.1.2.3.2.3 Communications and data transfer reliability.

4.2.1.2.3.2.3.1 Data transfer (transmission and reception) between dosimeter and reader should be accomplished within 10 sec, exclusive of time attributable to user interaction, of dosimeter introduction into the reader communications port or zone. This transfer rate applies to the transfer of a single dosimeter record/reading, in the operating environment described by requirements of this document, and includes any re-transmissions or error checking required to guarantee data integrity. It does not include any required reader operator input, via keypad/board, or any actions required due to reader displayed instructions. [PL3]

4.2.1.2.3.2.3.2 For transfer of dosimetric data (e.g. dose, dose rate, etc.), the difference between the dosimeter indication and the value recorded by the reader shall be no more than plus or minus one least significant digit. [PL1]

4.2.1.2.3.2.3.3 Appropriate error checking, data re-transmission, buffering, encryption, etc. should be employed to ensure secure and reliable data transmission and to guarantee data integrity. [PL3]

4.2.1.2.3.2.3.4 Communications link/interface should meet the performance requirements of this document for a minimum of 10,000 read events. For purposes of this requirement, a dosimeter-reader read event begins with introduction of a dosimeter into the reader communications port or zone, continues through to completion of data transfers, and ends with the removal of the dosimeter from the communications port/zone. [PL3]

4.2.1.2.3.2.4 Physical configuration and environmental effects – Communications Interface.

4.2.1.2.3.2.4.1 Size. Unit should not exceed 25 cm x 15 cm x 10 cm and 2 kg. [PL3]

4.2.1.2.3.2.4.2 Human interface. Unit should provide for easy dosimeter positioning/alignment/handling, from the user's standpoint, to establish and maintain communications link. [PL3]

4.2.1.2.3.2.4.3 Power. Unit should not require an independent power supply. [PL3]

4.2.1.2.3.2.4.4 Vibration – The unit should meet all physical and performance requirements during and following the environmental vibration conditions that may be encountered aboard naval ships. The conditions and associated tests described in Mil-Std-167-1 for Type I Environmental Vibration may be used for guidance in addressing this requirement. [PL3]

4.2.1.2.3.2.4.5 Inclination - The unit should meet all physical and functional performance requirements while rotating ±45 degrees from side to side at a rate of 5 to 7 cycles per minute for a period of not less than 30 minutes followed by 30 minutes of front to rear cycling to 45 degrees. [PL3]

4.2.1.2.3.2.4.6 Electromagnetic Interference - The unit shall meet the Control of Electromagnetic Interference requirements of MIL-STD-461 for surface ships and submarines and the DC Magnetic Field Environment requirements of MIL-STD-1399, Section 070, Part 1. The specific MIL-STD-461 requirements are RS101, RS103 (2 MHz to 18 GHz @ 200 V/m), and RE102. The MIL-STD-1399, Section 070, Part 1, requirement is 1600 A/m. [PL1]

4.2.1.2.4 Software

4.2.1.2.4.1 Platform - The dosimeter reading, programming, and management software should reside and be fully operational on the PC hardware configurations previously described. [PL3]

4.2.1.2.4.2 Functions and Capabilities - The dosimeter reading, programming, and management software should be MS Windows based, menu driven, and should support/provide the following functions and capabilities, at a minimum: [PL3]

4.2.1.2.4.2.1 Retrieval and storage of all dosimeter stored data records and programmed settings (e.g. dose, dose rate, peak dose, peak dose rate, dose event storage interval, alarm level settings, alarm control settings, return for calibration alarms, display control settings, recorded errors/status, battery level status, calibration parameters, operational status, etc.). [PL3]

4.2.1.2.4.2.2 Presentation of / access to retrieved data and settings via user friendly interactive menus, customizable tables and reports, etc. [PL3]

4.2.1.2.4.2.3 Dose analysis (e.g. dose and/or dose rate over time) to include presentation tools, both numeric/tabular and graphical, with user-customizable displays. [PL3]

4.2.1.2.4.2.4 Selection and programming of dosimeter operating parameters and issue data, to include creating /saving as uniquely identified dosimeter program profiles, e.g. profile name/version number. (See dosimeter requirements for identification of specific programmable operating parameters and data.) [PL3]

4.2.1.2.4.2.5 Selection/creation of 'alarm/alert conditional' scenarios for operational and/or administrative access control. [PL3]

4.2.1.2.4.2.6 Writing/downloading of [authorized] operator/user selectable dosimeter program settings/profiles to dosimeters, data/program transfer media (for field reader system), and across data networks. [PL3]

4.2.1.2.4.2.7 Uploading and downloading of dosimeter data and program settings/profiles between laboratory and field reader systems via portable data transport / transfer media as well as network connection. [PL3]

4.2.1.2.4.2.8 Reset/clearing/zeroing of dosimeter 'issue period' dose accumulation (vice clearing of total dose accumulated over all issues/issue periods), maximum dose & dose rates, alarm/alert events. [PL3]

4.2.1.2.4.3 Access. Software shall contain appropriate hierarchical security protections, such as usernames and passwords, to provide restricted access and prevent unauthorized dosimeter programming, changes to dosimeter program profiles, program settings, stored data, and reports. [PL1]

4.2.2 Field Reader System

4.2.2.1 Configuration. The field reader system comprises the interfacing dosimetry system communications hardware, software, and/or firmware required for dosimeter programming, issue/access control, data and dose acquisition and transfer. The system may be operated in stand-alone mode or in network mode, as a remote reader/communications interface for the laboratory reader system.

4.2.2.2 Electrical and Electronic

4.2.2.2.1 Communications – Network Mode. When connected as a remote reader/communications interface, either directly to a laboratory reader system / platform or via a network connection, the field reader system should operate with the communications functionality of the laboratory reader system. [PL3]

4.2.2.2.2 Communications – Stand-alone Mode

4.2.2.2.2.1 Data. The field reader system should be capable of transferring (transmitting and receiving) data, operating parameters/settings, programming instructions, etc. to and from the dosimeters and laboratory reader system described in this document. [PL3]

4.2.2.2.2.2 Interface(s) and data/program transfer media. The field reader system should be capable of communicating with the dosimeter directly and with the laboratory reader system indirectly, via portable data/program transfer media. The technology employed (hardware, firmware, software) should deliver the following performance: [PL3]

4.2.2.2.2.2.1 Compatibility. The communications interface(s) and data/program transfer media should be physically and functionally compatible with the dosimeter and reader systems hardware and software, as described by requirements provided in this document. [PL3]

4.2.2.2.2.2.2 Initialization. The reader system should be capable of automatically communicating with the dosimeter, once introduced into the reader's communications port or zone. [PL3]

4.2.2.2.2.2.3 Communications and data transfer reliability.

4.2.2.2.2.2.3.1 Data transfer (transmission and reception) between dosimeter and reader should be accomplished within 10 sec, exclusive of time attributable to user interaction, of dosimeter introduction into the reader communications port or zone. This transfer rate applies to the transfer of a single dosimeter record/reading, in the operating environment described by requirements of this document, and includes any re-transmissions or error checking required to guarantee data integrity. It does not include any required reader operator input, via keypad/board, or any actions required due to reader displayed instructions. [PL3]

4.2.2.2.2.2.3.2 For transfer of dosimetric data (e.g. dose, dose rate, etc.), the difference between the dosimeter indication and the value recorded by the reader should be no more than plus or minus one least significant digit. [PL3]

4.2.2.2.2.2.3.3 Appropriate error checking, data re-transmission, buffering, encryption, etc. should be employed to ensure secure and reliable data transmission and to guarantee data integrity. [PL3]

4.2.2.2.2.2.3.4 Field reader system should meet the performance requirements of this document for a minimum of 10,000 read events. For purposes of this requirement, a dosimeter-reader read event begins with introduction of a dosimeter into the reader communications port or zone, continues through to completion of data transfers, and ends with the removal of the dosimeter from the communications port/zone. [PL3]

4.2.2.2.3 Functions and Capabilities - The field reader system should support/provide the following functions and capabilities, at a minimum:

4.2.2.2.3.1 Retrieval of dosimeter stored data records, retrieval and storage of programmed settings (e.g. dose, dose rate, peak dose, peak dose rate, dose event storage interval, alarm level settings, return for calibration alarms, recorded errors/status, battery level status, operational status, etc.). [PL3]

4.2.2.2.3.2 Downloading of dosimeter program settings/profiles from laboratory reader system via portable data transport / transfer media. [PL3]

4.2.2.2.3.3 Writing/downloading of [authorized] operator/user selectable dosimeter program settings/profiles to dosimeters. [PL3]

4.2.2.2.3.4 Reset/clearing/zeroing of dosimeter 'issue period' dose accumulation (vice clearing of total dose accumulated over all issues/issue periods). [PL3]

4.2.2.2.3.5 Provide visual alert indication (visual and audible alert indication desired) and interrupt automatic data transfer process (reader operator intervention required to proceed) upon reading of a dosimeter whose 'calibration due' or 'required read' date has passed, that has experienced an alert/alarm condition, or meets other programmed 'alarm condition' scenarios. [PL3]

4.2.2.2.4 Access. Reader should contain appropriate security protections to provide restricted access and prevent unauthorized dosimeter programming, changes to dosimeter program profiles, and program settings. The reader should contain appropriate security protections to prevent access to stored data and reports, if this feature/access is available for/to the field unit. [PL3]

4.2.2.2.5 Power. The reader should operate from a 115 VAC, 60 hz. power supply. Battery backup is desirable. [PL3]

4.2.2.3 Physical configuration and environmental effects.

4.2.2.3.1 Size. Reader should not exceed 40 cm x 35 cm x 15 cm. [PL3]

4.2.2.3.2 Mount. Reader should be wall or sturdy (e.g. rubber feet) base mount. [PL3]

4.2.2.3.3 Human interface.

4.2.2.3.3.1 Dosimeter communications interface. Reader should provide for easy dosimeter positioning/alignment/handling, from the user's standpoint, to establish and maintain communications link. [PL3]

4.2.2.3.3.2 User/operator input. Reader should include a keypad/board for reader control functions and response input. [PL3]

4.2.2.3.3.3 Display. Reader display should be easily read (e.g. LED or LCD). Display characters should be 1/8" minimum height. [PL3]

4.2.2.3.4 Environmental Effects

4.2.2.3.4.1 Temperature and Relative Humidity.

4.2.2.3.4.1.1 Reader should meet all physical and performance requirements under the following conditions:

a) when in use, and following use, at any temperature in the range of -10°C to +50°C, and any relative humidity (RH) level in the range of 20% to 90% RH [PL2]

b) when stored, and following storage, at any temperature in the range of -25 to +70°C; 95% RH at ≥25°C [PL2]

4.2.2.3.4.2 Vibration. The reader should meet all physical and performance requirements during and following the environmental vibration conditions that may be encountered aboard naval ships. The conditions and associated tests described in Mil-Std-167-1 for Type I Environmental Vibration may be used for guidance in addressing this requirement. [PL2]

4.2.2.3.4.3 Shock. Reader system should meet all physical and performance requirements following one (1) drop from a height of one (1) meter onto a steel deck on any side or face. [PL2]

4.2.2.3.4.4 Inclination. The reader system should meet all physical and functional performance requirements while rotating ±45 degrees from side to side at a rate of 5 to 7 cycles per minute for a period of not less than 30 minutes followed by 30 minutes of front to rear cycling to ±45 degrees. [PL2]

4.2.2.3.4.5 Electromagnetic Interference - The reader system, while processing dosimetry, should meet the Control of Electromagnetic Interference requirements of MIL-STD-461 for surface ships and submarines and the DC Magnetic Field Environment requirements of MIL-STD-1399, Section 070, Part 1. The specific MIL-STD-461 requirements are CE101, CE102, RE101, RE102, CS101, CS114, CS116, RS101 and RS103. The MIL-STD-1399, Section 070, Part 1, requirement is 1600 A/m. [PL2]

CLAUSES INCORPORATED BY REFERENCE

52.212-1 Instructions to Offerors--Commercial Items JAN 2005

INSTRUCTIONS TO OFFERORS

INSTRUCTIONS, CONDITIONS, AND NOTICES TO OFFERORS

1.0 GENERAL

The purpose of this procurement is to obtain an Electronic Dosimetry System as specified in the Statement of Work.

Award is anticipated under this solicitation to be made upon initial proposal. Proposals shall be submitted no later than the specified closing date prior to 1400 hours. Offerors must comply with the detailed instructions for the format and content of the proposals; proposals that do not comply may be considered non-responsive and may render the offeror ineligible for award of contract. In order to maximize efficiency and minimize the effort involved in the proposal evaluation process, all offerors shall submit their proposals in accordance with the format presented below.

The narrative material in the proposal shall be typewritten with type no smaller than 12 point, 10 pitch, single-spaced, single sided on paper 8 ½ inches by 11 inches.

2.0 Technical Proposal

2.1 The technical section shall contain information in the following areas, as applicable. Technical proposals shall be submitted on a CD-ROM in pdf & excel format (3 copies) along with 3 paper copies. No pricing information should be contained in the technical proposal. All pricing shall be contained on Schedule B of the RFQ or as a separate document.

VOLUME I.	FACTORS
Factor A	System Capabilities – Base/Standard
Factor B	System Capabilities – Expanded/Enhanced
Factor C	Logistics Support and System Supportability
Factor D	Quality Assurance
Factor E	Warranty
Factor F	Corporate Experience
Factor G	Past Performance
Factor H	Product Samples (to be submitted with technical proposal)

VOLUME II.	BUSINESS PROPOSAL
Factor I	Price Proposal

FACTOR A: SYSTEMS CAPABILITES –BASE/STANDARD

Offerors shall address, in sufficient detail, the capabilities of the proposed product(s)/system relative to the base/standard system capabilities and performance requirements delineated in the SOW and its references. The offeror shall provide required information as an electronic file attachment entitled BaseCap.pdf and, for the Compliance Matrix, BaseMtrx.xls. At a minimum, in addition to the 'capabilities proposal' requirement stated above, the offeror shall include the following information/data:

a) System description to include system block diagram showing the individual components of the system and interconnections and interfaces.

b) A compliance matrix including the offeror's proposal paragraph number that corresponds to the appropriate SOW and/or EDS Performance Specification paragraph number, and/or the actual proposal paragraph, and also includes clear reference to/citation of substantiating reports, test data, calculations, etc.

c) Reports and test data analysis, theoretical calculations, and/or historical records of demonstrated performance, that support and substantiate the proposed system capability for meeting performance requirements. (Reminder: This applies to all requirements, including those that may not be simply, immediately, or directly testable, such as reliability or life expectancy)

d) Documentation that includes screen captures, pictures, data printouts, and/or operational data.

All documentation supplied by the offeror shall be sufficient to enable knowledgeable technical personnel to make a sound determination as to whether the proposed system meets the government minimum requirements. Product Samples may be tested and evaluated to verify the capabilities and/or performance claimed or to better assess the product/system's hands-on functionality and human interface; however, this evaluation does not relieve the contractor from the responsibility of providing sufficient documentation to substantiate the capabilities and performance claimed, as indicated. The Government may request a demonstration of ED reader(s) operation and system software use and functionality. If offeror chooses not to oblige, the Government will complete its evaluation without the benefit of the demonstration.

NOTE: The government intends to award on initial proposals and not open for discussions. Offerors are advised to provide sufficient information as specified above as clearly and orderly as possible.

FACTOR B: SYSTEM CAPABILITIES – EXPANDED/ENHANCED

Offerors shall address any Expanded/Enhanced System Capabilities and Performance, delineated in the SOW and its references, that their proposed system is capable of meeting. Any that can be met by the proposed base system should be appropriately identified and any that are considered an optional capability, i.e. not an inherent function or capability of the base product, shall be priced separately as a potential add-on feature or capability. The government will determine if the stated capability adds any value to the proposed system.

As in Factor A, sufficient documentation is required to enable knowledgeable technical personnel to make a sound determination as to whether the proposed system is capable of providing the expanded/enhanced capabilities and

performance. The offeror shall provide required information as an electronic file attachment entitled ExpCap.pdf and, for the Compliance Matrix, ExpMtrx.xls. At a minimum, in addition to the 'capabilities proposal' requirement stated above, the offeror shall include the following information/data:

a) System description to include system block diagram showing the individual components of the system and interconnections and interfaces.

b) A compliance matrix including the offeror's proposal paragraph number that corresponds to the appropriate SOW and/or EDS Performance Specification paragraph number, and/or the actual proposal paragraph, and also includes clear reference to/citation of substantiating reports, test data, calculations, etc.

c) Reports and test data analysis, theoretical calculations, and/or historical records of demonstrated performance, that support and substantiate the proposed system capability for meeting performance requirements.

d) Documentation that includes screen captures, pictures, data printouts, and/or operational data.

FACTOR C: LOGISTICS SUPPORT AND SYSTEM SUPPORTABILITY

Offerors shall address inherent product reliability, maintainability, etc. as well as support systems in place or offered relative to the Logistics Support and System Supportability requirements stated in the SOW. All documentation supplied by the offeror shall be sufficient to enable knowledgeable technical personnel to make a sound determination as to whether the proposed product/system meets the government minimum requirements and support plans and systems are in place to sustain it over its expected life. Offerors shall additionally provide data to support development of initial Life Cycle Cost Analysis estimates. These life cycle cost elements may be verified by product sample testing.

The offeror shall provide required information as an electronic file attachment entitled LogSup.pdf. Information submitted to address this requirement shall also include the following:

a) Logistics / Service support plans, systems, infrastructure to sustain the system through its expected life, including service during the warranty.period.

b) Reliability and Maintainability data (i.e.. Mean-Time-To-Repair (MTTR) and Mean-Time-Between-Failures (MTBF), including duty cycle upon which MTBF is based, and whether stated MTBF is based on reliability prediction models or actual data)

c) Description of user level (O-Level) recommended maintenance

d) Recommended response and calibration check procedures

e) Number of dosimeters, readers, software, of model and version being offered, that are currently in use and for how long and how long in production. If offered model and version have been recently introduced, provide information for the base or predecessor model and include a description of the changes/differences.

f) Description of Configuration Management plan

g) Maintenance Supplies and Parts Lists for O- and I-Level maintenance

h) Maintenance Procedures and Recommended Actions for O- and I-Level maintenance

i) Tools and Test Equipment Lists for O- and I-Level maintenance

j) Technical and Users Manuals

k) Number of batteries used per unit over expected life, based on power and life expectancy requirements stated in ED performance specification

l) Battery type and estimated cost per battery

m) Battery replacement time per unit

n) Calibration/Calibration check time per unit and required frequency, including a description of the calibration/calibration check actions upon which this time is based (I-Level maintenance)

o) User Level maintenance time per unit and required frequency, including a description of the actions upon which this time is based (O-Level maintenance)

FACTOR D: QUALITY ASSURANCE

As required in the SOW, the offeror shall have an effective quality assurance program, as well as an ESD program, in place. The Prime contractor should be ISO-9001 certified in design and manufacture of the proposed dosimetry system/products, at the manufacturing plant location. Proof of ISO-9001 certification shall be provided. If certification is not attained prior to solicitation close date, a certified plan (i.e., Notice of Pending Registration from a certified ISO-9000 registrar) should be in place and provided. This plan must show that ISO-9001 certification can be achieved prior to the delivery of the first product/system.

If not specifically addressed in the quality assurance plan provided, offeror shall describe any product inspections and production and reliability qualification and quality assurance testing, relative to system capabilities and performance requirements stated in the SOW and references, planned prior to delivery to the government. This description shall include the frequency and/or number of products to be tested.

Product warranty return data shall also be provided for the proposed system/products.

The offeror shall provide required information as an electronic file attachment entitled QA.pdf.

FACTOR E: WARRANTY

Offerors shall submit their standard warranty as well as the standard warranty with modification (if any) proposed to address the requirements stated in the SOW. Any warranty requirements stated in the SOW that cause an increase in cost over the standard warranty shall be identified and separately priced as options in the cost/price proposal.

The offeror shall provide required information as an electronic file attachment entitled Warranty.pdf.

FACTOR F: CORPORATE EXPERIENCE

Offerors shall submit information pertaining to relevant Corporate Experience, in consideration of all of the SOW paragraphs and including the specific requested information listed on Reference Information Sheets, Attachments 1A, 1B, and 1C.

The offerors shall submit data, for Attachments 1A and 1B, on current contracts performed by the offeror and/or its proposed significant subcontractors for efforts similar and relevant to the requirements of this Request for Proposal. In the case of orders under GSA contracts and/or BPA's, an individual order which meets the definition of "current and relevant" may be submitted as one of the contract references. If multiple orders under a single GSA contract or BPA are submitted in response to this Factor, each will be considered an individual contract reference for purposes of the 5 contract reference submission limitation. Current is defined as a contract performed within the last five (5) years. Relevant is defined as a contract equal to or exceeding $250 thousand (prime contractor) and for procurement of the ED model being offered. Quantity of contracts referenced that meet current and relevant issues is important to the Government. No more than 5 individual contract references, in response to information requested on Attachments 1A and 1B, may be submitted.

If an offeror does not have relevant Federal Government contracts, then provide data on state and local government or commercial contracts, in that order, to complete this report. If no contract data is available meeting the Current and Relevant definitions stated, information on the most recent contracts for the ED model being offered, or similar models, may be submitted.

NOTE: 1) If an offeror fails to submit at least one contract reference meeting the current and relevant definitions as defined in this Section, little or no credit may be given and proposal may be considered unacceptable.

Offerors shall provide information requested in Attachments 1A, 1B, and 1C and submit as an electronic file attachment entitled CorpExp.pdf.

NOTE:

1. The Reference Information Sheet – Summary Data, Attachment 1A, shall be submitted for the prime and each significant subcontractor, and is not included in the following page count.

2. For each contract reference, the required Corporate Experience information is limited to a maximum of four (4) pages that consists of the following pages:

   - 2 pages – Attachment 1B, Reference Information Sheet – Contract Specific Data, and
   - 2 pages for amplifying information.

3. For each Experience Element identified in Attachment 1C, the required Corporate Experience information is limited to a maximum of two (2) pages.

FACTOR G: PAST PERFORMANCE

Offerors are to provide past performance information for each contract reference cited. If the Offeror's Past Performance information is located in the Contractor Performance Assessment Reporting System (CPARS) or the Past Performance Information Retrieval System (PPIRS), then it is not necessary for a Past Performance Questionnaire to be submitted. For those offerors whose past performance information is not located on the automated systems, offerors shall contact their references and request that each reference complete Attachment 2 "Past Performance Questionnaire" and fax or e-mail the completed survey form BEFORE THE DUE DATE OF THIS SOLICITATION to the following address :

Carderock Div., Naval Surface Warfare Center
9500 MacArthur Blvd.
West Bethesda, MD 20817-5700
Attn: June Catterton, Code 3323
[Fax] 301-227-1847 or email june.catterton@navy.mil

The Government reserves the right to use past performance information obtained from sources other than those identified by the offeror. This past performance information will be used for the evaluation of past performance.

The Government does not assume the duty to search for data to cure the problems it finds in the information provided by the Offeror. The burden of providing thorough and complete past performance information remains with the Offeror.

NOTE: Offerors shall provide the Past Performance Questionnaire Cover Sheet, with each Past Performance Questionnaire – Contractor Performance Evaluation Survey distributed, for each cited contract (as applicable).

Offerors that have no record of past performance (i.e., new businesses) must submit a signed and dated statement to that effect.

Any information provided by the offeror relative to this requirement shall be submitted as an electronic file attachment entitled PastPerf.pdf.

FACTOR II: PRODUCT SAMPLES

Product Samples may be tested and evaluated to verify the capabilities and/or performance claimed or to better assess the product/system's hands-on functionality and human interface. Product samples of the system/products proposed to meet the requirements of the SOW and its references, identified below in terms used in the ED Performance Specification, shall be provided as part of the proposal.

Electronic Dosimeters, including any proposed accessories or options – 8 ea.
Dosimetry Management and Communications Hardware and Software, Laboratory Reader System – 2 sets
Dosimetry Management and Communications Hardware and Software, Field Reader System – 2 sets
Manuals, Technical and Users – 4 sets

All hardware, software, interfaces, interconnecting cabling, manuals, etc. required for operation of the system to demonstrate the capabilities and performance claimed shall be provided. Offeror may be requested to demonstrate operation of the ED reader(s) and system software use and functionality, at no additional cost to the Government. If offeror chooses not to oblige, the Government will complete its evaluation without the benefit of the demonstration.

Deliver the Product Samples to the following address:

Naval Surface Warfare Center Carderock Div
Attn: Code 6410 Raymond Abbundi
Receiving Bldg 143
9500 MacArthur Blvd
West Bethesda, MD 20817-5700

The government will return product samples after the evaluation period at the governments expense.

FACTOR I: PRICE PROPOSAL

The offeror's price proposal shall consist of a properly completed and signed solicitation document and the completion of Section B for each Contract Line Item Number specified.

CLAUSES INCORPORATED BY FULL TEXT

52.212-2 EVALUATION--COMMERCIAL ITEMS (JAN 1999)

(a) The Government will award a contract resulting from this solicitation to the responsible offeror whose offer conforming to the solicitation will be most advantageous to the Government, price and other factors considered. The following factors shall be used to evaluate offers:

(Contracting Officer shall insert the significant evaluation factors, such as (i) technical capability of the item offered to meet the Government requirement; (ii) price; (iii) past performance (see FAR 15.304); (iv) small disadvantaged business participation; and include them in the relative order of importance of the evaluation factors, such as in descending order of importance.)

Technical and past performance, when combined, are . (Contracting Officer state, in accordance with FAR 15.304, the relative importance of all other evaluation factors, when combined, when compared to price.)

(b) Options. The Government will evaluate offers for award purposes by adding the total price for all options to the total price for the basic requirement. The Government may determine that an offer is unacceptable if the option prices are significantly unbalanced. Evaluation of options shall not obligate the Government to exercise the option(s).

(c) A written notice of award or acceptance of an offer, mailed or otherwise furnished to the successful offeror within the time for acceptance specified in the offer, shall result in a binding contract without further action by either party. Before the offer's specified expiration time, the Government may accept an offer (or part of an offer), whether or not there are negotiations after its receipt, unless a written notice of withdrawal is received before award.

(End of clause)

EVALUATION

Evaluation

(a) The contract resulting from this solicitation will be awarded to that offeror whose offer, conforming to the solicitation requirements, is determined to provide the "best value" to the Government. The "best value" determination will be based on the merits of the offer and the offerors capability. The "best value" may not necessarily be the proposal offering the lowest cost, nor receiving the highest technical rating. As specified in the FAR 52.215-1 "Instructions to Offerors--Competitive Acquisition" provision, the Government intends to evaluate proposals and award a contract without discussions. An offer must be acceptable for the offeror to be eligible for award. OFFERS THAT DO NOT CONFORM TO THE REQUIREMENTS STATED HEREIN MAY BE DETERMINED UNACCEPTABLE AND MAY BE REJECTED WITHOUT FURTHER EVALUATION.

(b) Proposals will be rated and ranked on the evaluation factors listed below. It should be noted that cost does not have a finite numerical weight. Evaluation factors (other than cost) are significantly more important than cost. However, cost is an important factor and should be considered when preparing proposals. The Government reserves the right to award to a lower cost offeror when the offers are considered essentially equal in terms of technical capability, or when specific strengths and/or benefits associated with a technically superior offer do not support any associated cost or price premium. In summary, cost/technical capability tradeoffs will be made.

NOTE: *A finding of "Unacceptable" in one technical factor and/or subfactor may result in the entire proposal being determined unacceptable.*

(c) The offeror's proposal shall be in the format prescribed by, and shall contain a response to each of the areas identified in Section L. The evaluation factors for the technical proposal are described below and are listed in descending order of relative importance as follows:

(1) Factor A, System Capabilities – Base/Standard
(2) Factor C, Logistics Support and System Supportability
(3) Factor B, System Capabilities – Expanded/Enhanced
(4) Factor D, Quality Assurance
(5) Factor E, Warranty
(6) Factor F, Corporate Experience
(7) Factor G, Past Performance
(8) Factor H – Product Samples
(9) Factor I – Price Proposal

FACTOR A: SYSTEM CAPABILITIES – BASE/STANDARD

The referenced EDS Performance Specification presents the Electronic Dosimetry System (EDS) requirements considered optimum for its intended purpose in the U.S. Naval Nuclear Propulsion Program (NNPP).

All requirements contained in the Statement of Work are NOT of equal importance however, and some are considered significantly more important than others. Requirements are therefore assigned a priority level, from one (1) to three (3), based on their relative importance, Priority Level 1 (PL1) being most important. Furthermore, EDS dosimeter requirements are more important than reader system requirements. The following Subfactors, whose requirements are further broken down by priority level, are established for the EDS and are listed in order of descending importance:

Subfactor A1: Dosimeter
Subfactor A2: Reader Systems

Note that requirements not specifically identified in the EDS Performance Specification as 'Dosimeter' or 'Reader System' requirements, apply to both.

Requirement Priority Levels are described as follows:

Priority Level 1 (PL1) requirements are considered those that a minimally acceptable dosimetry system should possess, for NNPP puposes, and will therefore be evaluated on a Pass / Fail basis. Failure to meet 100% of the PL1 requirements will make the offeror ineligible for award. Note that although the dosimeter subfactor (A1) is considered more important than the reader systems subfactor (A2), failure to meet a PL1 reader systems (subfactor A2) requirement will make the offeror ineligible for award.

Priority Level 2 (PL2) requirements are moderately less important than PL1 requirements and significantly more important than Priority Level 3 requirements. Failure of a proposed product/system to fully meet a particular PL2 requirement would not necessarily make the offeror ineligible for award; however, remarkably weak capability or performance on a particular requirement(s), relative to its [requirement] influence on , role in, or contribution to the ED system's overall utility and intended NNPP purpose, may individually, or in aggregate, render the system/ product unsuitable for use and technically unacceptable.

Priority Level 3 (PL3) requirements are less important than PL2 and significantly less important than PL1 requirements. Requirements not identified as PL1 or PL2 shall be considered PL3.

Priority Levels 1, 2 and 3 requirements are as identified in the EDS Performance Specification.

FACTOR B: SYSTEM CAPABILITIES – EXPANDED/ENHANCED

Additional capabilities and/or enhanced performance may increase the utility of the ED system, expand its potential application, and/or satisfy other needs within the Navy. These capabilities are considered desirable enhancements to the ED System and are as identified in the SOW and EDS Performance Specification. The following Subfactors are established and listed in order of descending relative importance:

Subfactor B1: Dosimetric. *Additional radiation detection and measuring capabilities that increases its utility or expands its utility*

Subfactor B2: Field Use. *Capability or design aspect that reduces the encumbrances of wearing the device and minimizes any potential damage during field use, while enhancing the wearer's ability to passively monitor and minimize dose.*

Subfactor B3: Dose and Dosimeter Management. *Capability that improves or simplifies the dosimeter issue and dose collection and management process.*

Subfactor B4: Other Enhancements. *Offerors are encouraged to identify any other inherent capabilities, features, or performance exceeding that presented in the SOW or EDS Performance Specification.*

FACTOR C: LOGISTICS SUPPORT AND SYSTEM SUPPORTABILITY

This factor will be used to assess the level of Navy resources that may be required to maintain the system; to provide user level support; asset management, configuration management, and supply support; to maximize its operational availability; etc. The maturity, reliability, maintainability of the proposed product/system as well as the contractor's logistics support systems and infrastructure will be evaluated for this assessment.

The following Subfactors, listed in descending order of importance, will be evaluated:

Subfactor C1: Reliability
Subfactor C2: Maintainability
Subfactor C3: Logistics Support
Subfactor C4: Configuration Management

Offerors are reminded that information provided in response to instructions of Section L, relative to this Factor, and information submitted specifically addressing requirements in the SOW that relate to this Factor will be used in evaluating these Subfactors.

FACTOR D: QUALITY ASSURANCE

This factor will be used to assess the offeror's commitment to the manufacture and delivery of high quality, high reliability, zero-defect products with zero-return goals. The following Subfactors are established and listed below in order of descending importance:

Subfactor D1 Quality Assurance Program and Certifications.
Subfactor D2 Product Inspections and Testing.

Subfactor D3 Product Warranty Return Rate

FACTOR E: WARRANTY

The Offeror's standard warranty as well as the warranty offered to meet, or exceed, the Government's minimum requirements as stated in the SOW will be evaluated. The particular warranty package offered (period, terms, conditions, included services, price, etc.) may reflect the offeror's confidence in the quality and performance of its product and may serve as an indicator of risk associated with the system/product and/or post-award administration of the warranty. The warranty package that represents the best overall value and the lowest relative risk to the Government will receive the most favorable evaluation.

FACTOR F: CORPORATE EXPERIENCE

The Government will evaluate each offeror's experience. The evaluation will be a subjective assessment of the offeror's experience with work of similar nature, scope, complexity, and difficulty to that which must be performed under the prospective contract contemplated by this solicitation. The objective of the evaluation is to determine the degree to which the offeror has previously encountered the kinds of work, uncertainties, challenges, and risks that it is likely to encounter under the prospective contract; the extent to which the offeror supports its products after the sale, and to develop insight into the offeror's relative capability and the relative risk associated with contracting with the offeror.

The Government will consider the following elements in developing its assessment of Corporate Experience:

a) Radiation, Detection, Indication and Computation (RADIAC) instrument specific experience
b) Quality Assurance
c) Life Cycle Logistics Support and System Supportability
d) Problem resolution

Offerors are to address all of the paragraphs listed on Reference Information Sheets, Attachments 1B and 1C.

The Government's evaluation will be based primarily on the information provided by the offeror and submitted with its proposal (see Section L of the request for proposal for instructions about the preparation of information). The Government will evaluate the work performed for each reference for similarity and relevance to the work required under the contemplated contract. The more similar and relevant the work performed is to the contemplated work, the more valuable the experience to the Government. The Government reserves the right to consider information other than that included on the offeror-prepared forms. The Government also reserves the right to decide not to contact all of the references provided by the offeror. Offerors shall provide reference information only for corporate experience that is similar in scope, complexity, and difficulty to the work required under the contemplated contract and that is current and relevant as defined in Section L.

FACTOR G: PAST PERFORMANCE

The Government will assess each offeror's past performance. The assessment will be a subjective but unbiased judgment about the quality of an offeror's past performance. The Government will use its subjective assessment to make a comparative assessment of an offeror's capability. Past performance is a measure of the degree to which an offeror satisfied its customers in the past and complied with the statement of work, contract schedule and contract terms and conditions. Past performance is also a measure of the risk of performance associated with the offeror.

The Government will assess the offeror's past performance in the areas of:
(1) Quality of Product or Service
(2) Schedule
(3) Cost Control
(4) Business Relations

The Government may base its judgment about the quality of an offeror's past performance on:

(1) records of objective measurements and subjective ratings of specified performance attributes, if available, and

(2) statements of opinion about the quality of specific aspects of an offeror's performance, or about the quality of an offeror's overall performance.

The Government may solicit information from an offeror's customers and business associates; Federal, state and local government agencies; and from other persons and organizations. The Government reserves the right to limit the number of references it decides to contact and to contact references other than those provided by the offeror. The evaluation will take in account the same type of information regarding significant subcontractors proposed in the offeror's proposal.

FACTOR H: PRODUCT SAMPLES

Product Samples consisting of the following will be evaluated to verify the capabilities and/or performance claimed in the proposal:

Electronic Dosimeters, including any proposed accessories or options – 8 ea.
Dosimetry Management and Communications Hardware and Software, Laboratory Reader System – 2 sets
Dosimetry Management and Communications Hardware and Software, Field Reader System – 2 sets
Manuals, Technical and Users – 4 sets

Deliver the Product Samples to the following address:

Naval Surface Warfare Center Carderock Div
Attn: Code 6410 Raymond Abbundi
Receiving Bldg 143
9500 MacArthur Blvd
West Bethesda, MD 20817-5700

The government will return product samples after the evaluation period at the governments expense.

FACTOR I: PRICE PROPOSAL

The government will perform a price analysis on each proposal. Price information will be evaluated to the extent necessary to determine that each offeror has a complete understanding of the requirements and can perform for the price offered (realistic and reasonable cost). Any proposal which is materially unbalanced as to prices for basic and option quantities may be rejected as unacceptable. An unbalanced proposal is one that is based on prices significantly less than cost for some work and prices which are significantly overstated for other work. Since a Fixed Price type contract is planned and achievement of adequate price competition is contemplated, a detailed cost analysis is not deemed necessary; however, should it become necessary, adequate cost or pricing data will be requested.

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52.212-3 OFFEROR REPRESENTATIONS AND CERTIFICATIONS--COMMERCIAL ITEMS (MAR 2005)

An offeror shall complete only paragraph (j) of this provision if the offeror has completed the annual representations and certifications electronically at http://orca.bpn.gov. If an offeror has not completed the annual representations and certifications electronically at the ORCA website, the offeror shall complete only paragraphs (b) through (i) of this provision.

(a) Definitions. As used in this provision:

"Emerging small business" means a small business concern whose size is no greater than 50 percent of the numerical size standard for the NAICS code designated.

"Forced or indentured child labor" means all work or service-

(1) Exacted from any person under the age of 18 under the menace of any penalty for its nonperformance and for which the worker does not offer himself voluntarily; or

(2) Performed by any person under the age of 18 pursuant to a contract the enforcement of which can be accomplished by process or penalties.

Service-disabled veteran-owned small business concern--

(1) Means a small business concern--

(i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and

(ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a service-disabled veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

(2) Service-disabled veteran means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

"Small business concern" means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR Part 121 and size standards in this solicitation.

Veteran-owned small business concern means a small business concern--

(1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and

(2) The management and daily business operations of which are controlled by one or more veterans.

"Women-owned small business concern" means a small business concern--

(1) That is at least 51 percent owned by one or more women or, in the case of any publicly owned business, at least 51 percent of its stock is owned by one or more women; or

(2) Whose management and daily business operations are controlled by one or more women.

"Women-owned business concern" means a concern which is at least 51 percent owned by one or more women; or in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and whose management and daily business operations are controlled by one or more women.

(b) Taxpayer Identification Number (TIN) (26 U.S.C. 6109, 31 U.S.C. 7701). (Not applicable if the offeror is required to provide this information to a central contractor registration database to be eligible for award.)

(1) All offerors must submit the information required in paragraphs (b)(3) through (b)(5) of this provision to comply with debt collection requirements of 31 U.S.C. 7701(c) and 3325(d), reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M, and implementing regulations issued by the Internal Revenue Service (IRS).

(2) The TIN may be used by the Government to collect and report on any delinquent amounts arising out of the offeror's relationship with the Government (31 U.S.C. 7701(c)(3)). If the resulting contract is subject to the payment reporting requirements described in FAR 4.904, the TIN provided hereunder may be matched with IRS records to verify the accuracy of the offeror's TIN.

(3) Taxpayer Identification Number (TIN).

___ TIN:----------

___ TIN has been applied for.

___ TIN is not required because:

___ Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the United States and does not have an office or place of business or a fiscal paying agent in the United States;

Offeror is an agency or instrumentality of a foreign government;

___ Offeror is an agency or instrumentality of the Federal Government.

(4) Type of organization.

___ Sole proprietorship;

___ Partnership;

___ Corporate entity (not tax-exempt);

___ Corporate entity (tax-exempt);

___ Government entity (Federal, State, or local);

___ Foreign government;

___ International organization per 26 CFR 1.6049-4;

___ Other----------

(5) Common parent.

___ Offeror is not owned or controlled by a common parent;

Name and TIN of common parent:

Name----------

TIN----------

(c) Offerors must complete the following representations when the resulting contract will be performed in the United States or its outlying areas. Check all that apply.

(1) Small business concern. The offeror represents as part of its offer that it ( ) is, ( ) is not a small business concern.

(2) Veteran-owned small business concern. (Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.) The offeror represents as part of its offer that it ( ) is, ( ) is not a veteran-owned small business concern.

(3) Service-disabled veteran-owned small business concern. (Complete only if the offeror represented itself as a veteran-owned small business concern in paragraph (c)(2) of this provision.) The offeror represents as part of its offer that it ( ) is, ( ) is not a service-disabled veteran-owned small business concern.

(4) Small disadvantaged business concern. (Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.) The offeror represents, for general statistical purposes, that it ( ) is, ( ) is not a small disadvantaged business concern as defined in 13 CFR 124.1002.

(5) Women-owned small business concern. (Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.) The offeror represents that it ( ) is, ( ) is not a women-owned small business concern.

Note: Complete paragraphs (c)(6) and (c)(7) only if this solicitation is expected to exceed the simplified acquisition threshold.

(6) Women-owned business concern (other than small business concern). (Complete only if the offeror is a women-owned business concern and did not represent itself as a small business concern in paragraph (c)(1) of this provision.) The offeror represents that it ( ) is, a women-owned business concern.

(7) Tie bid priority for labor surplus area concerns. If this is an invitation for bid, small business offerors may identify the labor surplus areas in which costs to be incurred on account of manufacturing or production (by offeror or first-tier subcontractors) amount to more than 50 percent of the contract price:

---

(8) Small Business Size for the Small Business Competitiveness Demonstration Program and for the Targeted Industry Categories under the Small Business Competitiveness Demonstration Program. (Complete only if the offeror has represented itself to be a small business concern under the size standards for this solicitation.)

(i) (Complete only for solicitations indicated in an addendum as being set-aside for emerging small businesses in one of the designated industry groups (DIGs).) The offeror represents as part of its offer that it ( ) is, ( ) is not an emerging small business.

(ii) (Complete only for solicitations indicated in an addendum as being for one of the targeted industry categories (TICs) or designated industry groups (DIGs).) Offeror represents as follows:

(A) Offeror's number of employees for the past 12 months (check the Employees column if size standard stated in the solicitation is expressed in terms of number of employees); or

(B) Offeror's average annual gross revenue for the last 3 fiscal years (check the Average Annual Gross Number of Revenues column if size standard stated in the solicitation is expressed in terms of annual receipts).

(Check one of the following):

Average Annual

Number of Employees Gross Revenues

___ 50 or fewer ___ $1 million or less

___ 51 - 100 ___ $1,000,001 - $2 million

___ 101 - 250 ___ $2,000,001 - $3.5 million

___ 251 - 500 ___ $3,500,001 - $5 million

___ 501 - 750 ___ $5,000,001 - $10 million

___ 751 - 1,000 ___ $10,000,001 - $17 million

___ Over 1,000 ___ Over $17 million

(9) (Complete only if the solicitation contains the clause at FAR 52.219-23, Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns or FAR 52.219-25, Small Disadvantaged Business Participation Program-Disadvantaged Status and Reporting, and the offeror desires a benefit based on its disadvantaged status.)

(i) General. The offeror represents that either--

(A) It ( ) is, ( ) is not certified by the Small Business Administration as a small disadvantaged business concern and identified, on the date of this representation, as a certified small disadvantaged business concern in the database maintained by the Small Business Administration (PRO-Net), and that no material change in disadvantaged ownership and control has occurred since its certification, and, where the concern is owned by one or more individuals claiming disadvantaged status, the net worth of each individual upon whom the certification is based does not exceed $750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); or

(B) It ( ) has, ( )(has not submitted a completed application to the Small Business Administration or a Private Certifier to be certified as a small disadvantaged business concern in accordance with 13 CFR 124, Subpart B, and a decision on that application is pending, and that no material change in disadvantaged ownership and control has occurred since its application was submitted.

(ii) Joint Ventures under the Price Evaluation Adjustment for Small Disadvantaged Business Concerns. The offeror represents, as part of its offer, that it is a joint venture that complies with the requirements in 13 CFR 124.1002(f) and that the representation in paragraph (c)(9)(i) of this provision is accurate for the small disadvantaged business concern that is participating in the joint venture. (The offeror shall enter the name of the small disadvantaged business concern that is participating in the joint venture: _____.)

(10) HUBZone small business concern. (Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.) The offeror represents, as part of its offer, that--

(i) It ( ) is, ( ) is not a HUBZone small business concern listed, on the date of this representation, on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration, and no material change in ownership and control, principal office, or HUBZone employee percentage has occurred since it was certified by the Small Business Administration in accordance with 13 CFR part 126; and

(ii) It ( ) is, ( ) is not s joint venture that complies with the requirements of 13 CFR part 126, and the representation in paragraph (c)(10)(i) of this provision is accurate for the HUBZone small business concern or concerns that are participating in the joint venture. (The offeror shall enter the name or names of the HUBZone small business concern or concerns that are participating in the joint venture:_____.) Each HUBZone small business concern participating in the joint venture shall submit a separate signed copy of the HUBZone representation.

(d) Certifications and representations required to implement provisions of Executive Order 11246--

(1) Previous Contracts and Compliance. The offeror represents that--

(i) It ( ) has, ( ) has not, participated in a previous contract or subcontract subject either to the Equal Opportunity clause of this solicitation, the and

(ii) It ( ) has, ( ) has not, filed all required compliance reports.

(2) Affirmative Action Compliance. The offeror represents that--

(i) It ( ) has developed and has on file, ( ) has not developed and does not have on file, at each establishment, affirmative action programs required by rules and regulations of the Secretary of Labor (41 CFR Subparts 60-1 and 60-2), or

(ii) It ( ) has not previously had contracts subject to the written affirmative action programs requirement of the rules and regulations of the Secretary of Labor.

(e) Certification Regarding Payments to Influence Federal Transactions (31 U.S.C. 1352). (Applies only if the contract is expected to exceed $100,000.) By submission of its offer, the offeror certifies to the best of its knowledge and belief that no Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress or an employee of a Member of Congress on his or her behalf in connection with the award of any resultant contract.

(f) Buy American Act Certificate. (Applies only if the clause at Federal Acquisition Regulation (FAR) 52.225-1, Buy American Act --Supplies, is included in this solicitation.)

(1) The offeror certifies that each end product, except those listed in paragraph (f)(2) of this provision, is a domestic end product and that the offeror has considered components of unknown origin to have been mined, produced, or manufactured outside the United States. The offeror shall list as foreign end products those end products manufactured in the United States that do not qualify as domestic end products. The terms ``component,'' ``domestic end product,'' ``end product,'' ``foreign end product,'' and ``United States'' are defined in the clause of this solicitation entitled ``Buy American Act--Supplies.''

(2) Foreign End Products:

Line Item No.:----------
Country of Origin:----------

(List as necessary)

(3) The Government will evaluate offers in accordance with the policies and procedures of FAR Part 25.

(g)(1) *Buy American Act-Free Trade Agreements-Israeli Trade Act Certificate.* (Applies only if the clause at FAR 52.225-3, Buy American Act-Free Trade Agreements-Israeli Trade Act, is included in this solicitation.)

(i) The offeror certifies that each end product, except those listed in paragraph (g)(1)(ii) or (g)(1)(iii) of this provision, is a domestic end product and that the offeror has considered components of unknown origin to have been mined, produced, or manufactured outside the United States. The terms "component," "domestic end product," "end product," "foreign end product," and "United States" are defined in the clause of this solicitation entitled "Buy American Act-Free Trade Agreements-Israeli Trade Act."

(ii) The offeror certifies that the following supplies are end products of Australia, Canada, Chile, Mexico, or Singapore, or Israeli end products as defined in the clause of this solicitation entitled "Buy American Act-Free Trade Agreements-Israeli Trade Act":

End Products of Australia, Canada, Chile, Mexico, or Singapore or Israeli End Products:

Line Item No.	Country of Origin
_____	_____
_____	_____
_____	_____

[List as necessary]

(iii) The offeror shall list those supplies that are foreign end products (other than those listed in paragraph (g)(1)(ii) of this provision) as defined in the clause of this solicitation entitled "Buy American Act-Free Trade Agreements-Israeli Trade Act." The offeror shall list as other foreign end products those end products manufactured in the United States that do not qualify as domestic end products.

Other Foreign End Products:

Line Item No.	Country of Origin
_____	_____
_____	_____
_____	_____

[List as necessary]

(iv) The Government will evaluate offers in accordance with the policies and procedures of FAR Part 25.
(2) *Buy American Act-Free Trade Agreements-Israeli Trade Act Certificate, Alternate I (Jan 2004).* If Alternate I to the clause at FAR 52.225-3 is included in this solicitation, substitute the following paragraph (g)(1)(ii) for paragraph (g)(1)(ii) of the basic provision:

(g)(1)(ii) The offeror certifies that the following supplies are Canadian end products as defined in the clause of this solicitation entitled "Buy American Act-Free Trade Agreements-Israeli Trade Act":

Canadian End Products:

Line Item No.
_____
_____
_____

[List as necessary]

(3) Buy American Act-Free Trade Agreements-Israeli Trade Act Certificate, Alternate II (Jan 2004). If Alternate II to the clause at FAR 52.225-3 is included in this solicitation, substitute the following paragraph (g)(1)(ii) for paragraph (g)(1)(ii) of the basic provision:

(g)(1)(ii) The offeror certifies that the following supplies are Canadian end products or Israeli end products as defined in the clause of this solicitation entitled "Buy American Act-Free Trade Agreements-Israeli Trade Act":

Canadian or Israeli End Products:

Line Item No.	Country of Origin
_____	_____
_____	_____
_____	_____

[List as necessary]

(4) Trade Agreements Certificate. (Applies only if the clause at FAR 52.225-5, Trade Agreements, is included in this solicitation.)

(i) The offeror certifies that each end product, except those listed in paragraph (g)(4)(ii) of this provision, is a U.S.-made or designated country end product, as defined in the clause of this solicitation entitled "Trade Agreements."

(ii) The offeror shall list as other end products those end products that are not U.S.-made or designated country end products.

Other End Products:

Line Item No.	Country of Origin
_____	_____
_____	_____
_____	_____

[List as necessary]

(iii) The Government will evaluate offers in accordance with the policies and procedures of FAR Part 25. For line items covered by the WTO GPA, the Government will evaluate offers of U.S.-made or designated country end products without regard to the restrictions of the Buy American Act. The Government will consider for award only offers of U.S.-made or designated country end products unless the Contracting Officer determines that there are no offers for such products or that the offers for such products are insufficient to fulfill the requirements of the solicitation.

(h) Certification Regarding Debarment, Suspension or Ineligibility for Award (Executive Order 12549). The offeror certifies, to the best of its knowledge and belief, that --

(1) The offeror and/or any of its principals ( ) are, ( ) are not presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency, and

(2) ( ) Have, ( ) have not, within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a Federal, state or local government contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and

(3) ( ) are, ( ) are not presently indicted for, or otherwise criminally or civilly charged by a Government entity with, commission of any of these offenses.

(i) Certification Regarding Knowledge of Child Labor for Listed End Products (Executive Order 13126). [The Contracting Officer must list in paragraph (i)(1) any end products being acquired under this solicitation that are included in the List of Products Requiring Contractor Certification as to Forced or Indentured Child Labor, unless excluded at 22.1503(b).]

(1) Listed End Product

Listed End Product	Listed Countries of Origin:

•	•
•	•
•	•

(2) Certification. [If the Contracting Officer has identified end products and countries of origin in paragraph (i)(1) of this provision, then the offeror must certify to either (i)(2)(i) or (i)(2)(ii) by checking the appropriate block.]

( )(i) The offeror will not supply any end product listed in paragraph (i)(1) of this provision that was mined, produced, or manufactured in the corresponding country as listed for that product.

( ) (ii) The offeror may supply an end product listed in paragraph (i)(1) of this provision that was mined, produced, or manufactured in the corresponding country as listed for that product. The offeror certifies that is has made a good faith effort to determine whether forced or indentured child labor was used to mine, produce, or manufacture any such end product furnished under this contract. On the basis of those efforts, the offeror certifies that it is not aware of any such use of child labor.

(j)(1) Annual Representations and Certifications. Any changes provided by the offeror in paragraph (j) of this provision do not automatically change the representations and certifications posted on the Online Representations and Certifications Application (ORCA) website.

(2) The offeror has completed the annual representations and certifications electronically via the ORCA website at http://orca.bpn.gov. After reviewing the ORCA database information, the offeror verifies by submission of this offer that the representations and certifications currently posted electronically at FAR 52.212-3, Offeror Representations and Certifications--Commercial Items, have been entered or updated in the last 12 months, are current, accurate, complete, and applicable to this solicitation (including the business size standard applicable to the NAICS code referenced for this solicitation), as of the date of this offer and are incorporated in this offer by reference (see FAR 4.1201), except for paragraphs ____

(Offeror to identify the applicable paragraphs at (b) through (i) of this provision that the offeror has completed for the purposes of this solicitation only, if any.

These amended representation(s) and/or certification(s) are also incorporated in this offer and are current, accurate, and complete as of the date of this offer.

Any changes provided by the offeror are applicable to this solicitation only, and do not result in an update to the representations and certifications posted on ORCA.)

(End of provision)

Your quotation must include the following information:

Price list number and date

or

Cost breakdown by direct labor (list categories, hours and pay rates). In addition to the direct rates, provide the applicable indirect information (G&A), overhead, facilities capital cost of money (FCCM) and profit.

or

Applicable General Services Administration (GSA) contract number.

If unable to quote FOB, Destination, please complete the following:

FOB Point _____

Estimated Shipping Charge _____

Business size:

Large _____ Small _____ Nonprofit _____

Cage Code _____

Tax Identification Number (TIN) _____

DUNS _____

ELIGIBILITY REQUIREMENTS

All contractors and individuals doing business with the Federal Government must be registered at the Contractor Central Registration Database located at: http://www.ccr.gov/

ELECTRONIC DISTRIBUTION OF CONTRACT DOCUMENTS

All contract award and contract modification documents will be distributed electronically using the Navy Air Force Interface (NAFI) system. The contractor's copy will be provided in portable document format (pdf) as an attachment to an e-mail that will be sent to the contractor by the NAFI system. A pdf file may be accessed using Adobe Acrobat Reader software. This is a free software that may be downloaded at http://www.adobe.com/products/acrobat/readstep.html

Provide the following information that will be used to make electronic distribution for any resultant contract:

Name of Point of Contact to Receive Distribution _____

Phone Number for Point of Contact _____

E-Mail Address for Receipt of Distribution _____

USE OF THE GOVERNMENT-WIDE COMMERCIAL PURCHASE CARD

Will you accept the Government-wide Commercial Purchase Card as a method of purchasing supplies and/or services.

_____Yes _____ No

Will you accept the Government wide Commercial Purchase Card as a method of payment for your invoice.

_____Yes _____ No

DUTY FREE ENTRY

Will any materials being shipped to the Government require a duty-free entry certificate for foreign supplies.

_____Yes _____ No

If yes, please include dollar amount $_____

Note: The following provision 52.204-8 applies to this solicitation only when the solicitation includes the clause 52.213-4, Terms and Conditions—Simplified Acquisitions (Other Than Commercial Items)

52.204-8 Annual Representations and Certifications (Jan 2005)

(a)(1) If the clause at 52.204-7, Central Contractor Registration, is included in this solicitation, paragraph (b) of this provision applies.

(2) If the clause at 52.204-7 is not included in this solicitation, and the offeror is currently registered in CCR, and has completed the ORCA electronically, the offeror may choose to use paragraph (b) instead of completing the corresponding individual representations and certifications in the solicitation. The offeror shall indicate which option applies by checking one of the following boxes:

[ ] (i) Paragraph (b) applies.

[ ] (ii) Paragraph (b) does not apply and the offeror has completed the individual representations and certifications in the solicitation.

(b) The offeror has completed the annual representations and certifications electronically via the Online Representations and Certifications Application (ORCA) website at http://orca.bpn.gov. After reviewing the ORCA database information, the offeror verifies by submission of the offer that the representations and certifications currently posted electronically have been entered or updated within the last 12 months, are current, accurate, complete, and applicable to this solicitation (including the business size standard applicable to the NAICS code referenced for this solicitation), as of the date of this offer and are incorporated in this offer by reference (see FAR 4.1201); except for the changes identified below [offeror to insert changes, identifying change by clause number, title, date]. These amended representation(s) and/or certification(s) are also incorporated in this offer and are current, accurate, and complete as of the date of this offer.

FAR Clause # Title Date Change

Any changes provided by the offeror are applicable to this solicitation only, and do not result in an update to the representations and certifications posted on ORCA.

(End of provision)

ATTACHMENT 1A
REFERENCE INFORMATION SHEET – SUMMARY DATA

ATTACHMENT 1A - REFERENCE INFORMATION SHEET -SUMMARY DATA

Contractor Name: _____ **CAGE Code:** _____

Address: _____

_____

Division *(If Applicable)*:

_____

Contractor Point of Contact Information *(Representative who can verify data):*

Name: _____

Telephone Number: (___) _____

Fax Number: (___) _____

E-Mail Address: _____

In the table below, identify the contract references submitted for evaluation under the Corporate Experience Factor:

Contract #	Performed Work as:	Method for Obtaining Past Performance:
	☐ **Prime or** ☐ **Sub**	☐ **CPARS** ☐ **PPIRS** ☐ **Questionnaire**
	☐ **Prime or** ☐ **Sub**	☐ **CPARS** ☐ **PPIRS** ☐ **Questionnaire**
	☐ **Prime or** ☐ **Sub**	☐ **CPARS** ☐ **PPIRS** ☐ **Questionnaire**
	☐ **Prime or** ☐ **Sub**	☐ **CPARS** ☐ **PPIRS** ☐ **Questionnaire**
	☐ **Prime or** ☐ **Sub**	☐ **CPARS** ☐ **PPIRS** ☐ **Questionnaire**

NOTE: ***In accordance with Section L provision L-317, Submission of Proposals, if the offeror's Past Performance Information for the contract(s) referenced is located in the CPARS or PPIRS, then it is not necessary for a Past Performance Questionnaire to be submitted.***

ATTACHMENT 1B
REFERENCE INFORMATION SHEET – CONTRACT SPECIFIC DATA

(Reproduce this form as needed for each Contract Reference Cited)

1. Contract Number or other Control Number: _____

2. Complete Name and Address of Contract Reference *(Government agency, commercial firm, or other organization)*:
   Name: _____
   Address: _____
   _____

3. System Name/Title and Brief Description of Contracted Effort: _____
   _____
   _____
   Contract Type: _____

4. Contract Period of Performance: _____ Award Date _____ Effective Date _____ Final Delivery Date _____ Closeout Date

5. Initial Contract Amount (Total Ceiling): _____
   Final *(or current)* Contract Amount *(Total Ceiling)*, if different from initial: _____
   Final amount invoiced or amount invoiced to date: _____

6. Major Deliverable/Product *(specific hardware or software product)*: _____
   Initial Qty Ordered: _____ Final (Total) Qty Ordered: _____ Final Qty Delivered: _____

   Delivery Schedule Performance *(Enter required delivery period (e.g. monthly, quarterly, semi-annually, yearly, etc.) below or specific date for each period.)*

Period _____ *(Month, Quarter, etc.)*	1st Period	2nd Period	3rd Period	4th Period	Final/Total
Qty Due (Cumulative)					
Qty Delivered (Cumulative)					

   Required Final Delivery *(Date)* _____ Actual Final Delivery *(Date)* _____

   Qty rejected at delivery and/or requiring rework at Contractor or Government facility: _____ Qty returned under warranty: _____

   How long has this product been on the market or available for sale? _____ Is this product currently in production? ☐ Yes ☐ No

10. Location of work/deliveries
    (City, County, State or Province, Country): _____

ATTACHMENT 1B
REFERENCE INFORMATION SHEET – CONTRACT SPECIFIC DATA

11. Current status of contract *(choose one)*:

- ☐ Work/Deliveries continuing, on schedule
- ☐ Work/Deliveries completed, no further action pending or underway
- ☐ Work/Deliveries completed, claims negotiations pending or underway
- ☐ Terminated for Convenience
- ☐ Other (attach explanation)
- ☐ Work/Deliveries continuing, behind schedule
- ☐ Work/Deliveries completed, routine administrative action pending or underway
- ☐ Work/Deliveries completed, litigation pending or underway
- ☐ Terminated for Default

12. Did this contract require a Small Business Subcontracting Plan (FAR 52.219-9)? ☐ Yes ☐ No
If "Yes", attach a copy of your most recently submitted SF 294/295 reports.

13. Offeror shall provide a brief explanation/description of the circumstances of any delivery delays or extensions, cost growth/over-runs or contract increases, technical performance or quality issues, and any other problems encountered in the course of performance, as well as corrective actions employed to resolve. This information should not exceed three (3) pages in length.

14. Technical Point of Contact for this Reference:
Name: _____
Telephone #: _____ E-mail: _____

15. Contracting Point of Contact for this Reference:
Name: _____
Telephone #: _____ E-mail: _____

ATTACHMENT 1C
REFERENCE INFORMATION SHEET – GENERAL EXPERIENCE ELEMENTS

GENERAL TECHNICAL, PRODUCTION, AND LOGISTICS SUPPORT EXPERIENCE ELEMENTS

In addition to the contract specific information required by Attachment 1B, the offeror shall address each of the 'Experience' elements identified below, not to exceed two (2) pages per element, and shall include reference to any contract(s), government preferred, on which this experience has been demonstrated. *Note: Contract number and customer information (agency name, address, point-of-contact, telephone no., e-mail address, etc.) shall be included on each page unless contract(s) cited are also listed in Attachments 1A & 1B.*

Experience information submitted with no, or no government, contract references may receive less credit than those providing government contract references/information.

Element 1 Experience in the production, operation, and evaluation of radiation detection instrumentation.

Element 2 Experience in designing and manufacturing for system supportability (e.g. System Operational Effectiveness ("Design for Support")) and in providing life cycle logistics support (e.g. logistics support plans, systems, infrastructure, training, user maintenance procedures, configuration control, government configuration identification, technical data and manuals), relative to requirements stated in the SOW.

Element 3 Experience in maintaining quality control and assurance programs and certifications, performing production and reliability qualification and quality assurance testing, familiarity with military, national/international testing and evaluation protocols, relative to radiation detection equipment and the requirements of this SOW.

ATTACHMENT 1C
REFERENCE INFORMATION SHEET – GENERAL EXPERIENCE ELEMENTS

ATTACHMENT 2 – PAST PERFORMANCE QUESTIONNAIRE
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Carderock Division, Naval Surface Warfare Center
9500 MacArthur Blvd., Code 3323
West Bethesda, MD 20817-5700

June Catterton
CONTRACTS DEPARTMENT,

FAX

TO: **June Catterton** **AGENCY:** **NSWCCD**

PHONE: **FAX 301-227-1847** **EMAIL:** **June.catterton@navy.mil**

INFORMATION REQUEST
PAST PERFORMANCE

This office is currently in the process of awarding a competitive supply/service contract. _____ has provided your name and organization as a reference regarding _____ record of past performance under Contract No. _____
Specifically, we are looking for past performance information regarding the following areas:

a.) Quality of Product or Service - **Conformance to contract requirements, specifications and standards of good workmanship, accuracy of reports, appropriateness of personnel, and technical excellence;**
b.) Schedule - **Timeliness of performance, met interim milestones, reliable, responsive to technical and contractual direction, completed on time, including wrap-up and contract administration, no liquidated damages assessed;**
c.) Cost Control - **Within budget, current accurate and complete billings, actual cost/rates reflect closely to negotiated cost/rates, cost efficiency measures, adequate budgetary internal controls;**
d.) Business Relationships - **Effective management, businesslike correspondence, responsive to contract requirements, prompt notification of problems, reasonable/cooperative behavior, flexible, proactive, effective Contractor recommended solutions, timely award and management of subcontracts, effective small/small disadvantaged business subcontracting program;**
e.) Key Personnel **(if applicable)- How long key personnel stayed on the contract, how well they managed their portion of the contract, the quality and relevancy of the products/services generated by key personnel.**

Evaluate each of the performance areas using the following scoring criteria:

Exceptional	Contractor meets and exceeds contractual requirements. Identify multiple significant events and state how it was a benefit to the government/customer.
Very Good	Contractor meets and exceeds some contractual requirements. Identify at least one significant event and state how it was a benefit to the government/customer.
Satisfactory	Contractor meets contractual requirements. There are only minor problems, OR major problems that the contractor recovered from without a negative effect on the contract.
Marginal	Contractor does not meet some contractual requirements. Identify at least one significant event that the contractor had trouble overcoming and state how it affected the government/customer.
Unsatisfactory	Contractor did not meet most contractual requirements and a timely recovery is not likely. Identify multiple significant events that the contractor had trouble overcoming and state how

ATTACHMENT 1C
REFERENCE INFORMATION SHEET – GENERAL EXPERIENCE ELEMENTS

	they affected the government/customer.

In order for our team to compile its evaluation, we request that you complete the attached survey form and email it with any other pertinent information within ten (10) working days to : June Catterton, fax 301-227-1847 or by email at june.catterton@navy.mil. Any additional relevant information you have would be vital in our assessment of the aforementioned Contractor.

Thank you very much!
June Catterton
Contract Negotiator

ATTACHMENT 1C
REFERENCE INFORMATION SHEET – GENERAL EXPERIENCE ELEMENTS

ATTACHMENT 2 – PAST PERFORMANCE QUESTIONNAIRE

Competition Sensitive
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CONTRACTOR PERFORMANCE EVALUATION SURVEY

CONTRACTOR NAME: _____ **CONTRACT NUMBER:** _____

EVALUATION PERIOD: _____ **DELIVERY ORDER NO.:** _____

GOVERNMENT (or Other Customer) TECHNICAL REPRESENTATIVE:

_____
Name (print) Code Phone

Prior to completing this form, please verify that the following two statements are true:

1. The referenced contract has work performed within the last five (5) years. Yes: ____
2. The referenced contract specifies either an Electronic Dosimeter (ED)/ED System Yes: ____
   OR a similar radiation detection and measuring instrument Yes: ____

Please read the statements below and check the appropriate rating based on the scoring criteria listed on page 1:

	EXCEPTIONAL (See Note)	VERY GOOD	SATISFACTORY	MARGINAL	UNSATISFACTORY (See Note)
1. QUALITY OF PRODUCT OR SERVICE[MSOffice1]:					
(a) The Contractor provided a product or service that conformed to contract requirements, specifications, and standards of good workmanship					
(b) The Contractor submitted accurate reports.					
(c) The Contractor utilized personnel that were appropriate to the effort performed.					
2. SCHEDULE:					
(a) The tasks required under this effort were performed in a timely manner and in accordance with the period of performance of the contract.					
(b) The Contractor was responsive to technical and/or contractual direction.					
3. COST CONTROL[MSOffice2]:					
(a) The Contractor performed the effort within the estimated cost/price.					
(b) The Contractor submitted accurate invoices on a timely basis					
(c) The Contractor demonstrated cost efficiencies in performing the required effort.					
(d) The actual costs/rates realized closely reflected the negotiated costs/rates.					

ATTACHMENT 1C
REFERENCE INFORMATION SHEET – GENERAL EXPERIENCE ELEMENTS

NOTE: "Exceptional" or "Unsatisfactory" ratings require a brief explanation; please provide explanation on page 4.

ATTACHMENT 1C
REFERENCE INFORMATION SHEET – GENERAL EXPERIENCE ELEMENTS

ATTACHMENT 2 – PAST PERFORMANCE QUESTIONNAIRE

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CONTRACTOR PERFORMANCE EVALUATION SURVEY (CONTINUED)

CONTRACTOR NAME: _____ **CONTRACT NUMBER:** _____

	EXCEPTIONAL (See Note)	VERY GOOD	SATISFACTORY	MARGINAL	UNSATISFACTORY (See Note)
4. BUSINESS RELATIONSHIPS:					
(a) The Contractor demonstrated effective management over the effort performed.					
(b) The Contractor maintained an open line of communication so that the COR and/or Technical Point of Contact were apprised of technical, cost, and schedule issues.					
(c) The Contractor presented information and correspondence in a clear, concise, and businesslike manner.					
(d) The Contractor promptly notified the Contracting Officer's Representative, Technical Point of Contact, and/or Contracting Officer in a timely manner regarding urgent issues.					
(e) The Contractor cooperated with the Government in providing flexible, proactive, and effective recommended solutions to critical program issues.					
(f) The Contractor made timely award to, and demonstrated effective management of, its subcontractors.					
(g) The Contractor demonstrated an effective small/small disadvantaged business subcontracting program.					
5. KEY PERSONNEL (if applicable):					
(a) The labor turnover in key personnel labor categories was minimal and did not adversely affect Contractor performance.					
(b) The Contractor did not frequently propose personnel to fulfill the requirements of the contract that were clearly unqualified.					

NOTE: "Exceptional" or "Unsatisfactory" ratings require a brief explanation; please provide explanation on page 4.

ATTACHMENT 1C
REFERENCE INFORMATION SHEET – GENERAL EXPERIENCE ELEMENTS

ATTACHMENT 2 – PAST PERFORMANCE QUESTIONNAIRE

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CONTRACTOR PERFORMANCE EVALUATION SURVEY (CONTINUED)

CONTRACTOR NAME: _____ **CONTRACT NUMBER:** _____

NARRATIVE EXPLANATION: